

ABSTRACT

A method includes a resin sealing step of placing, in a cavity 28 of a mold 20, a substrate 16 to which semiconductor elements 11 on which bumps 12 are arranged, a resin sealing step of supplying resin 35 to positions of the bumps 12 so that a resin layer 13 sealing the bumps 12 is formed, a protruding electrode exposing step of exposing at least ends of the bumps 12 sealed by the resin layer 13 so that ends of the bumps 12 are exposed from the resin layer 13, and a separating step of cutting the substrate 16 together with the resin layer 13 so that the semiconductor elements 11 are separated from each other.

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図 1

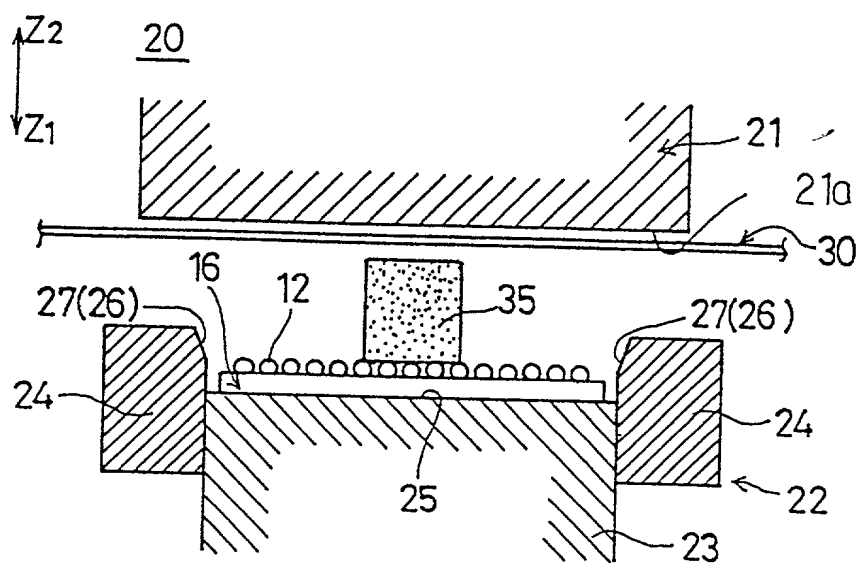


図 1 A

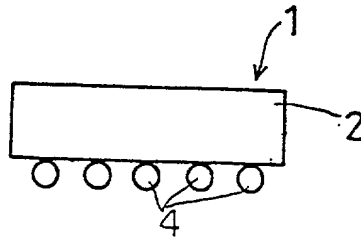


図 1 B

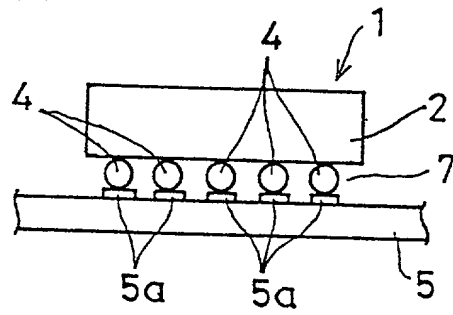
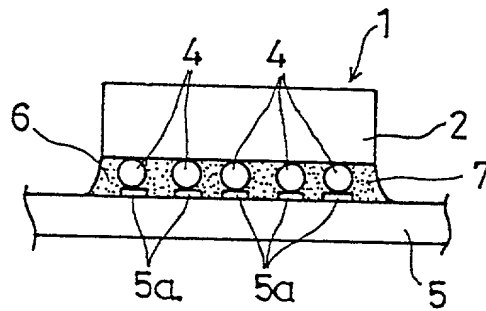


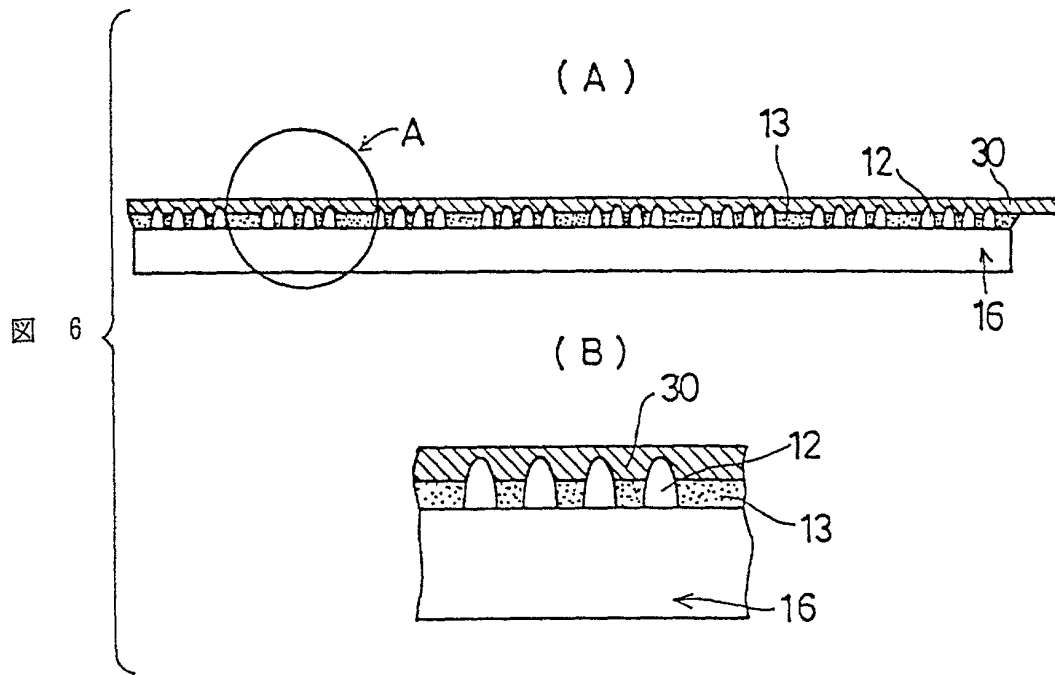
図 1 C



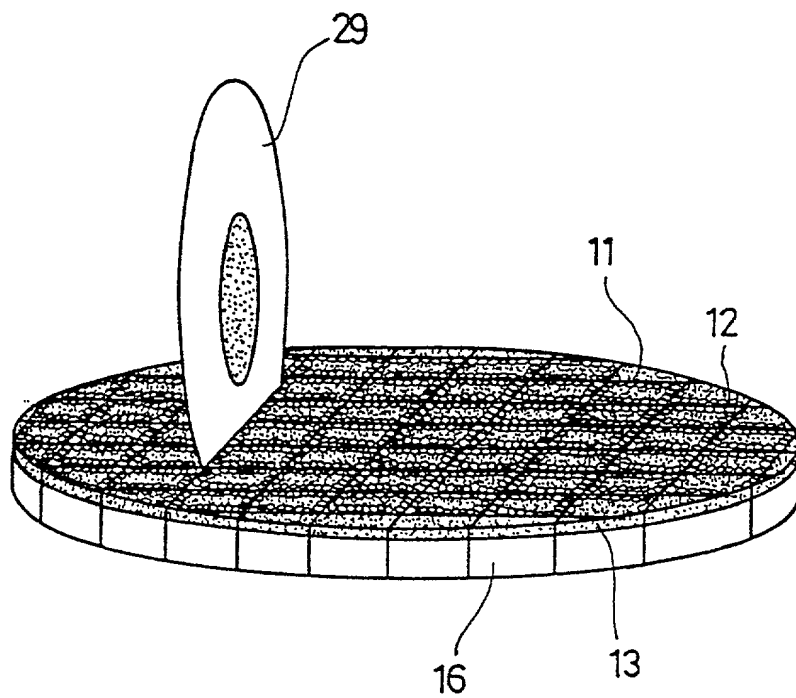
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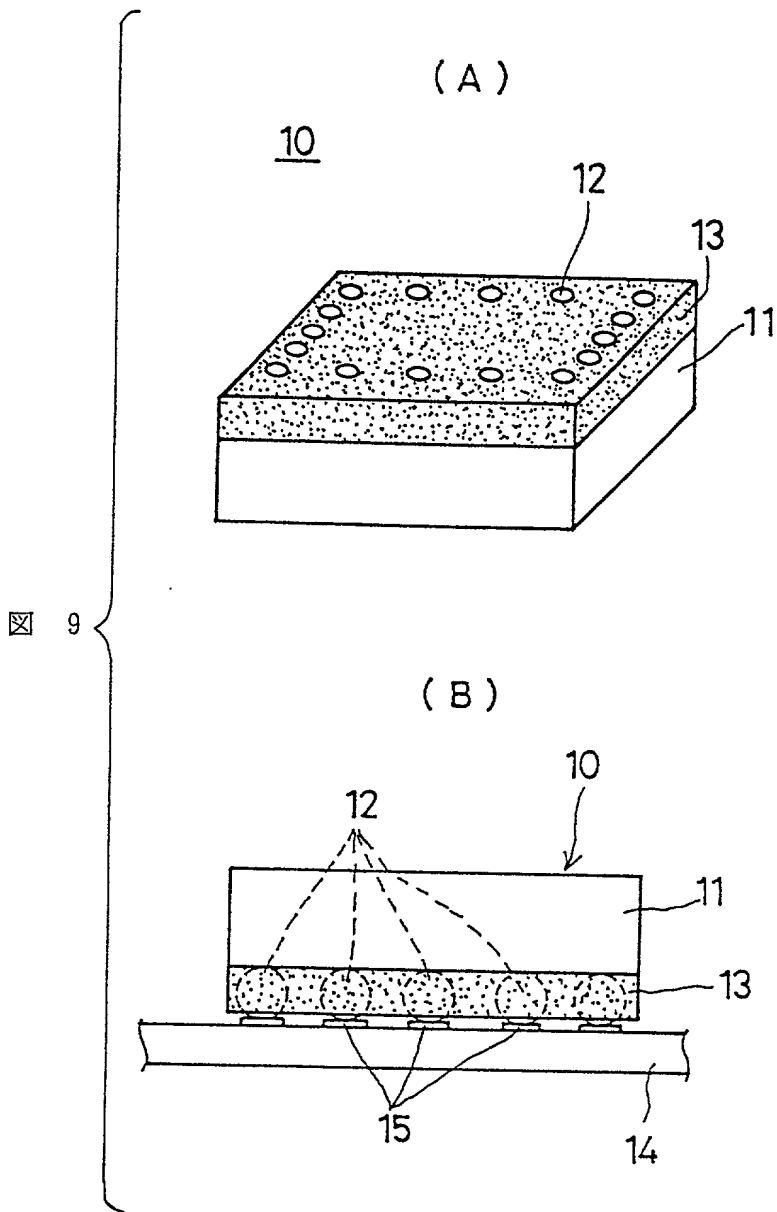
Fig. 6



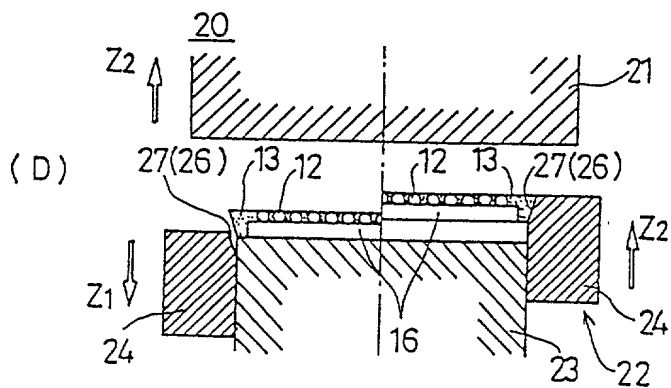
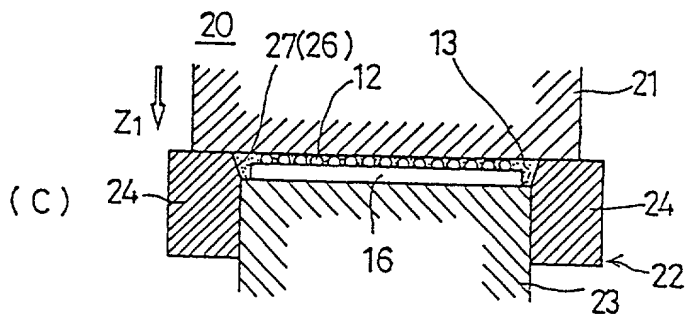
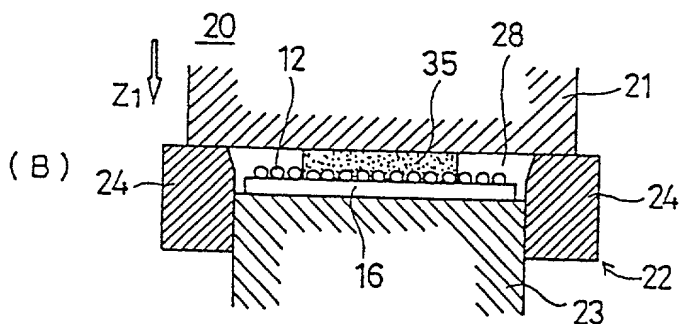
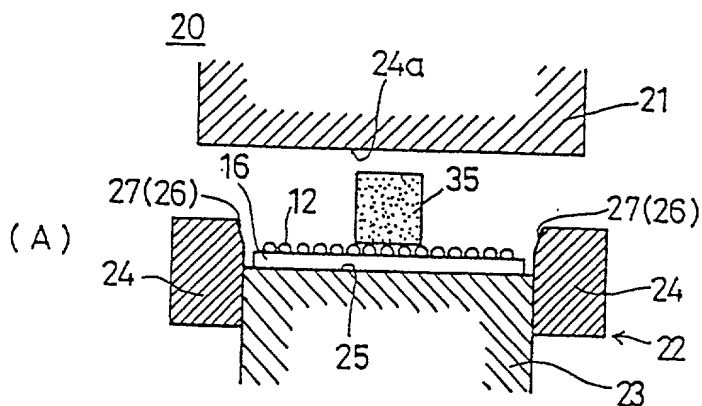
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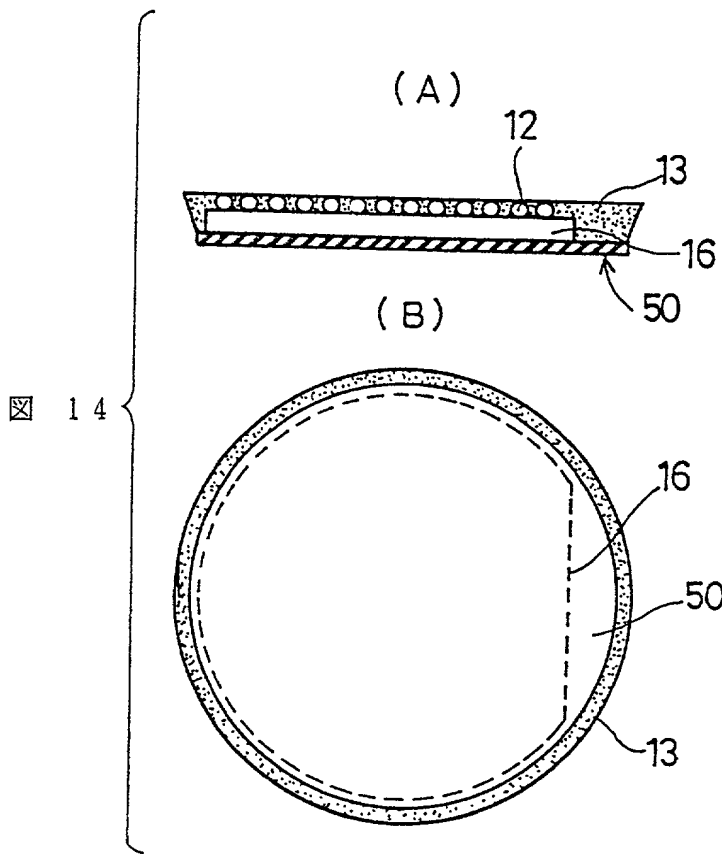


9 10 11 12 13 14 15



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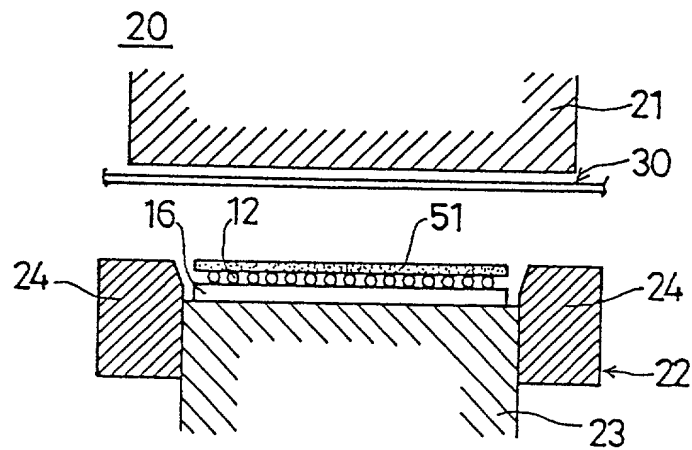
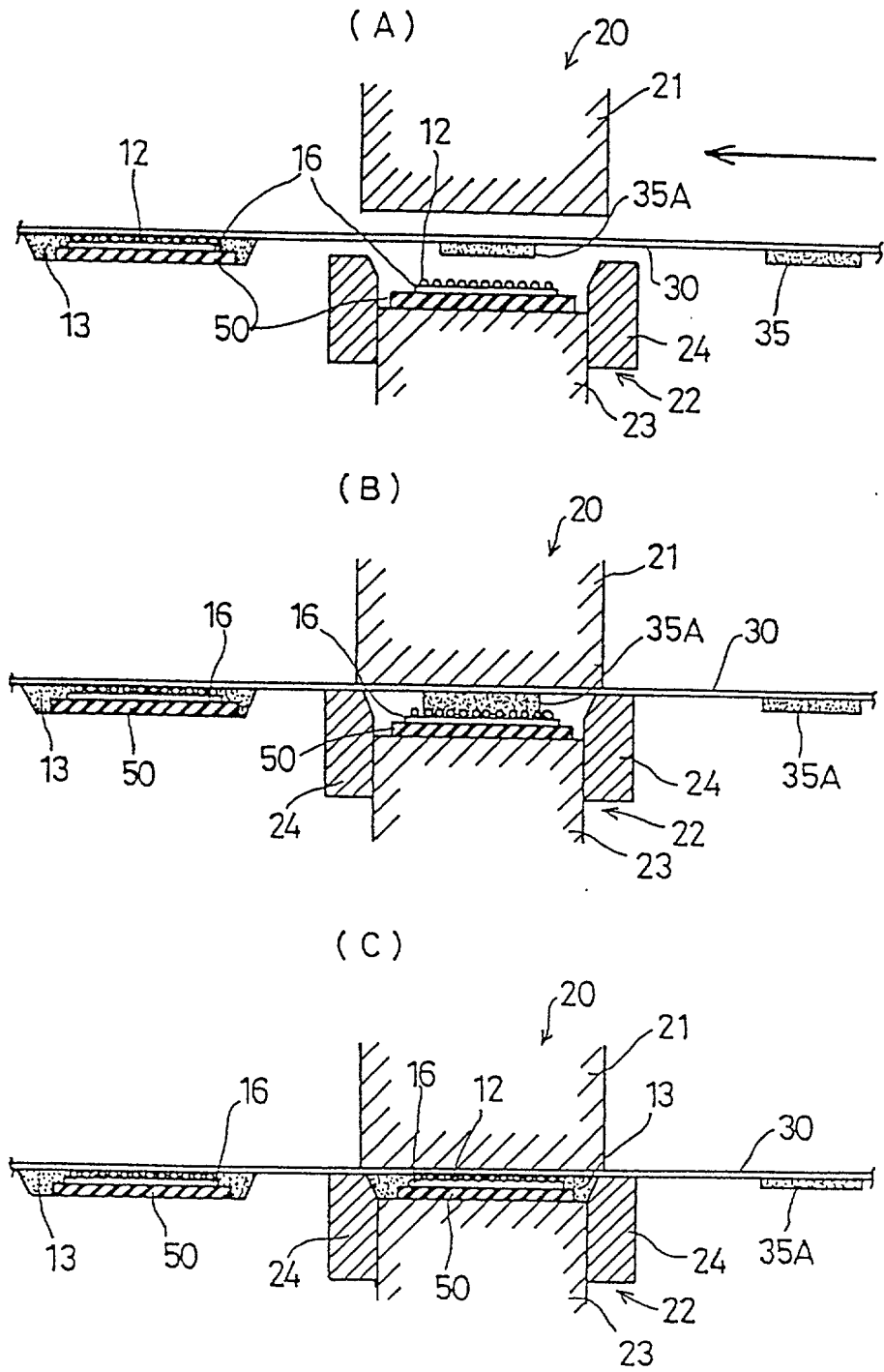
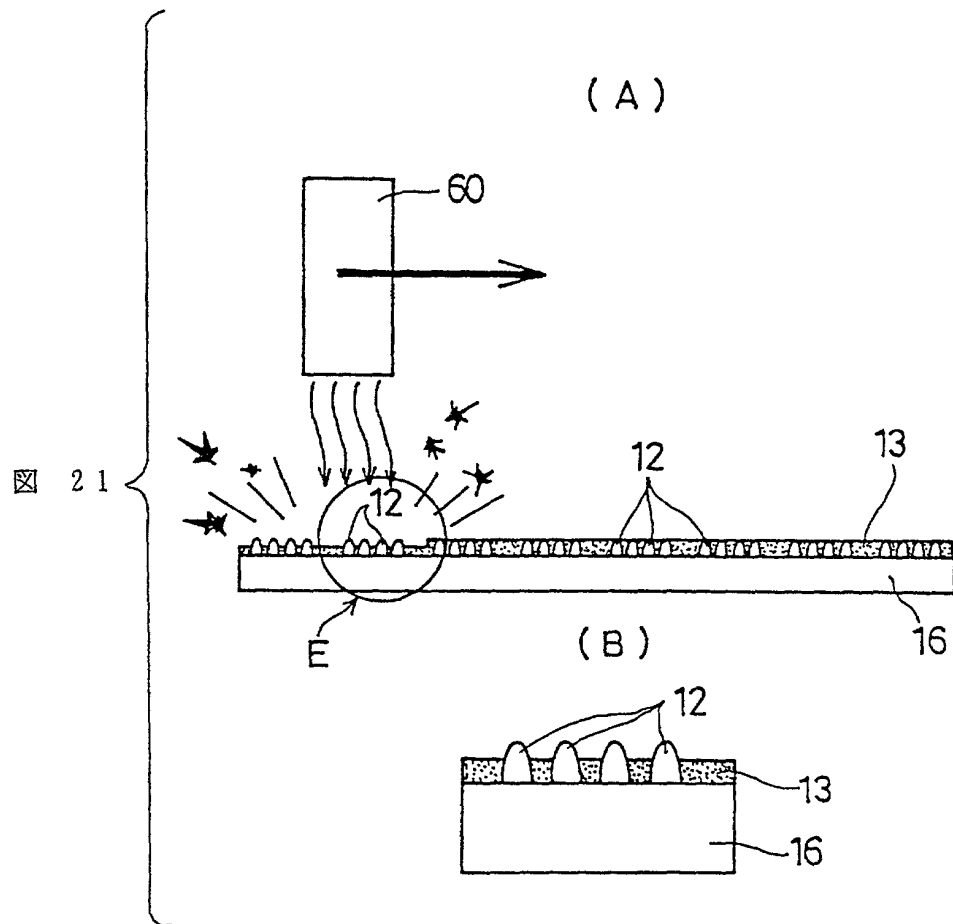


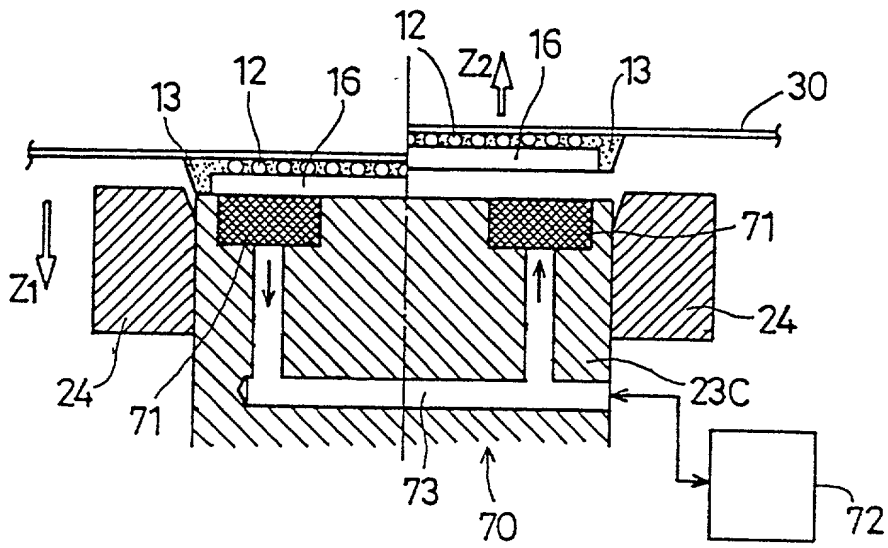
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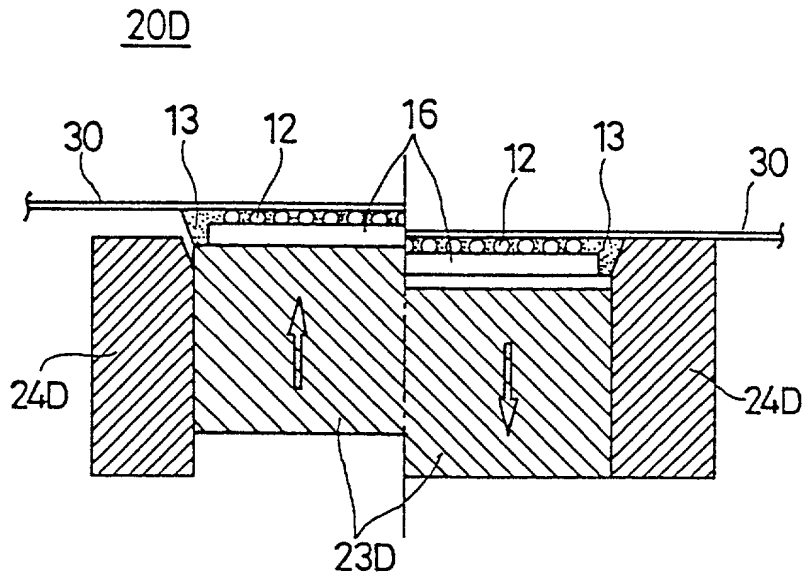


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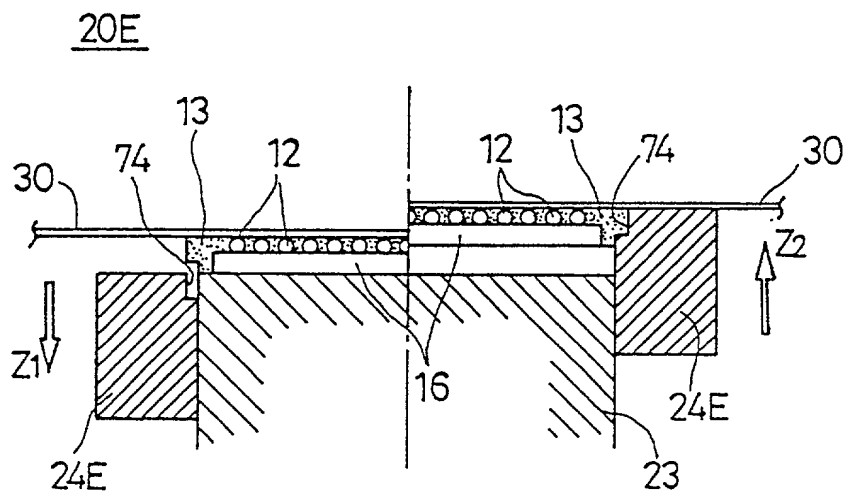
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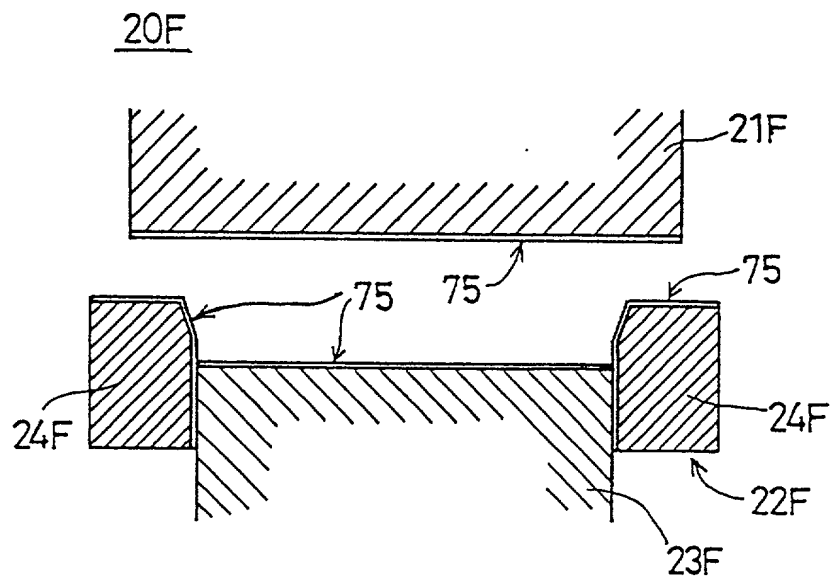
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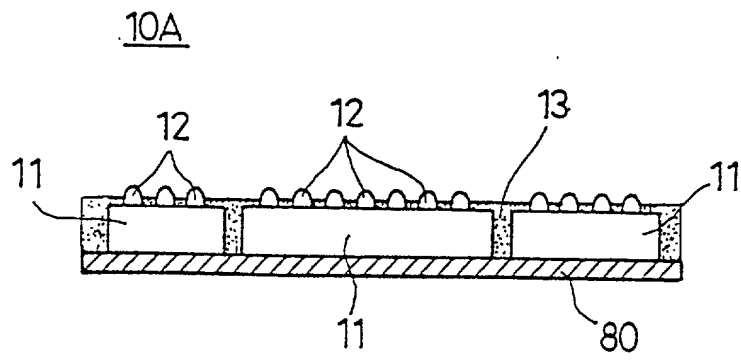
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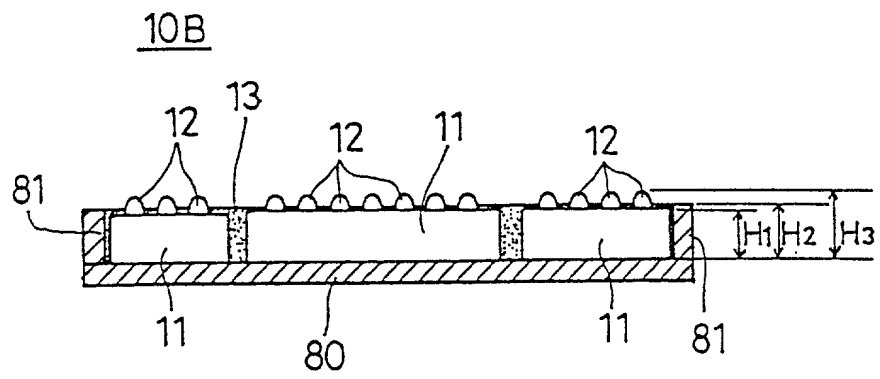
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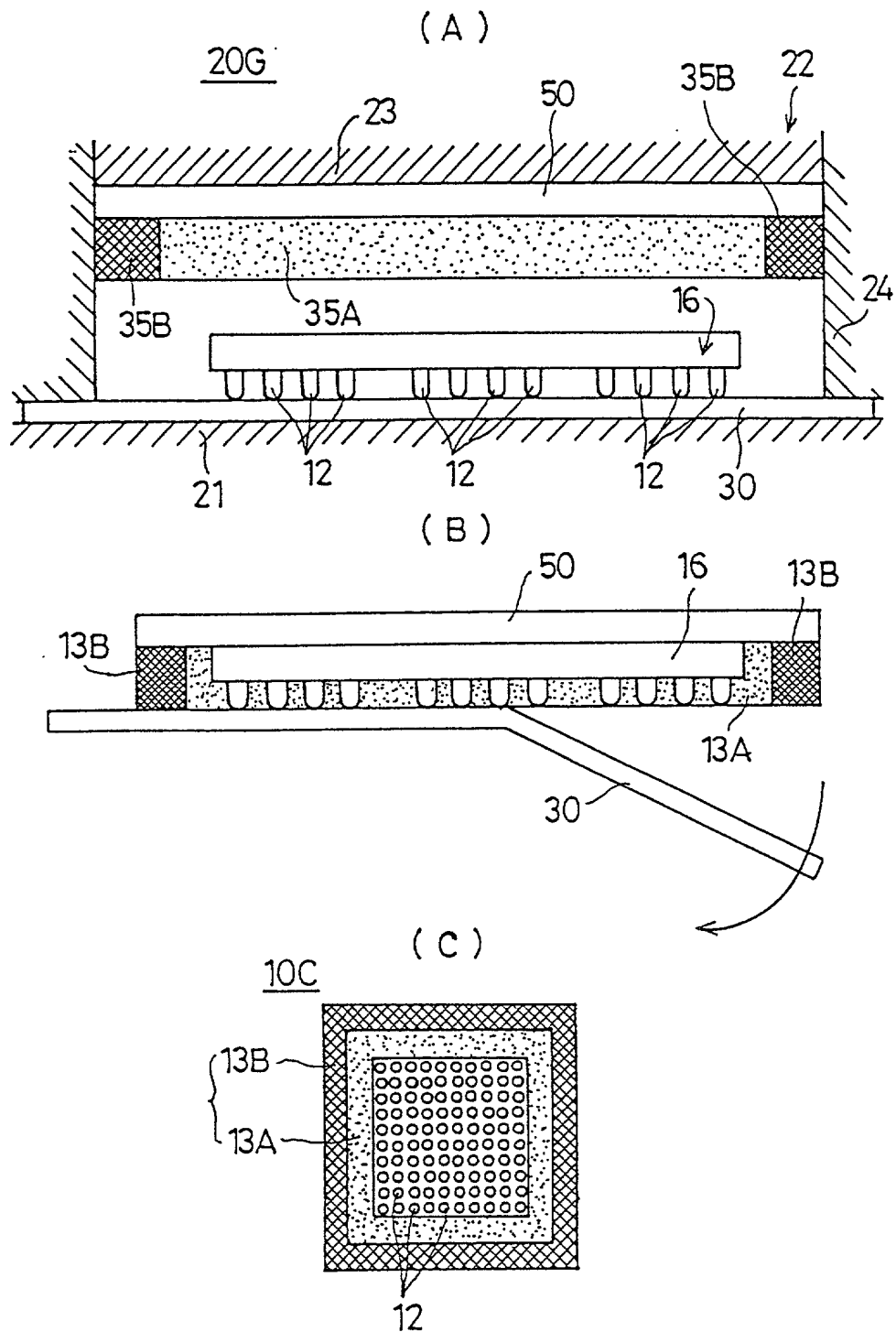
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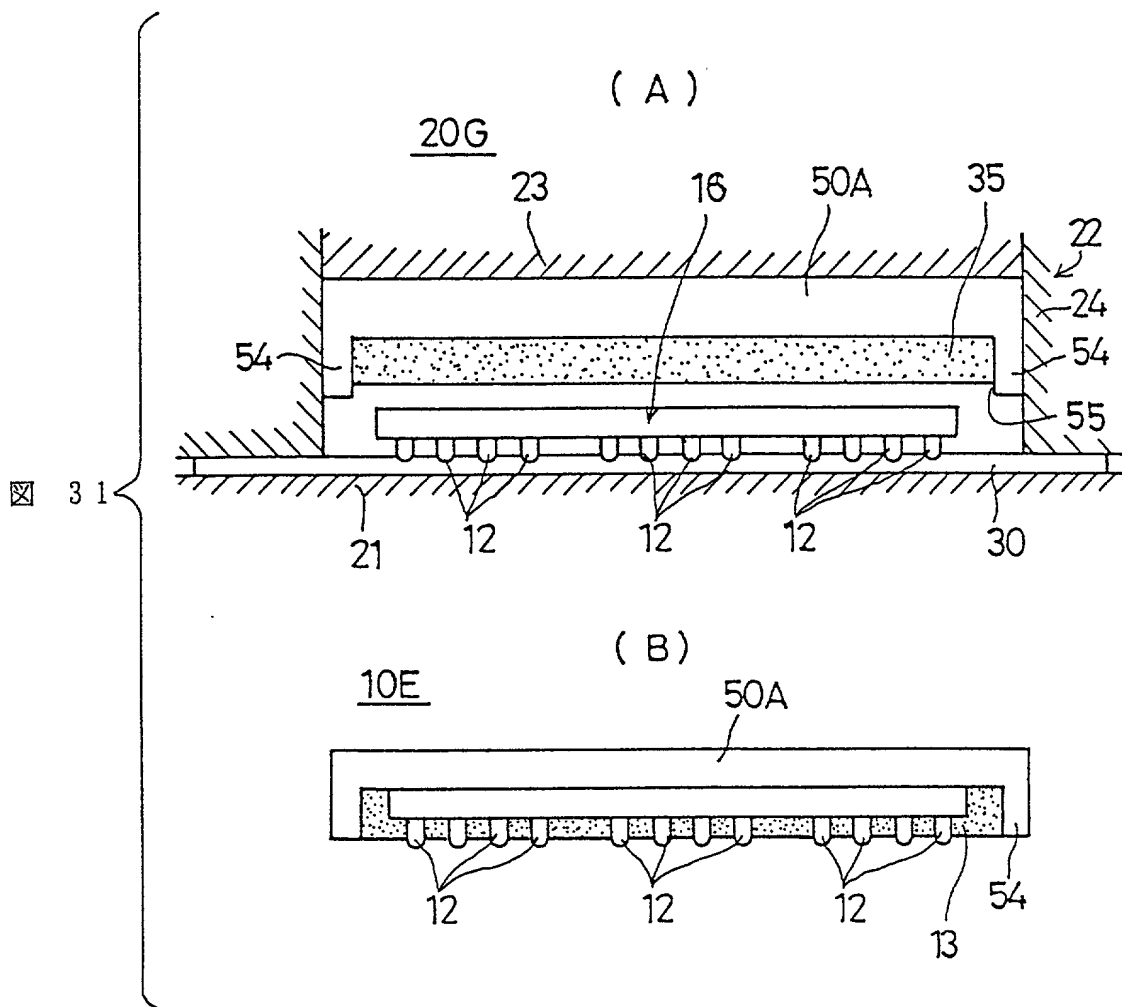
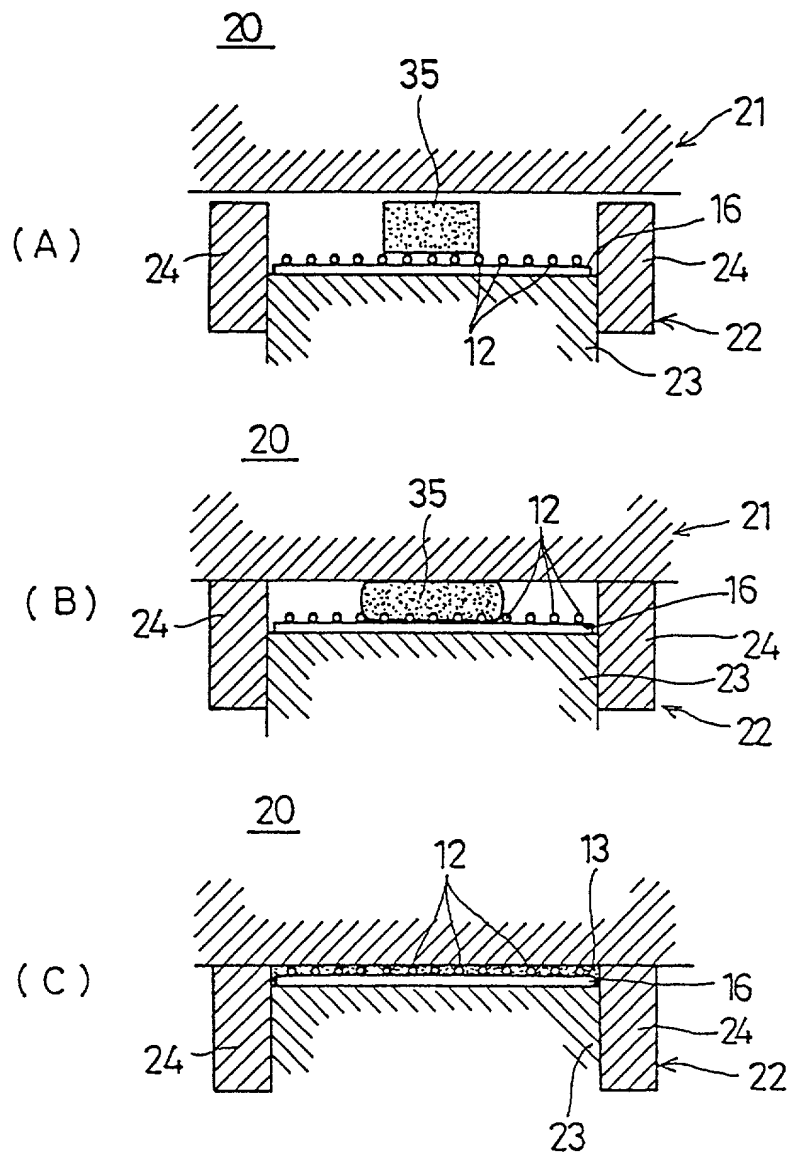
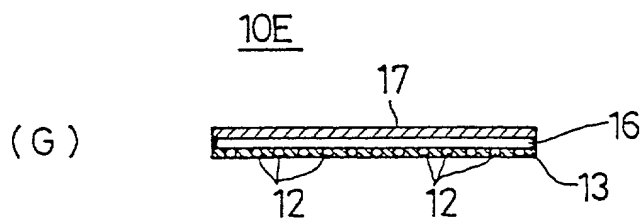
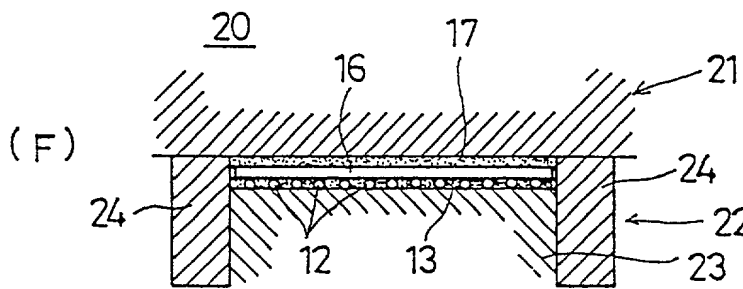
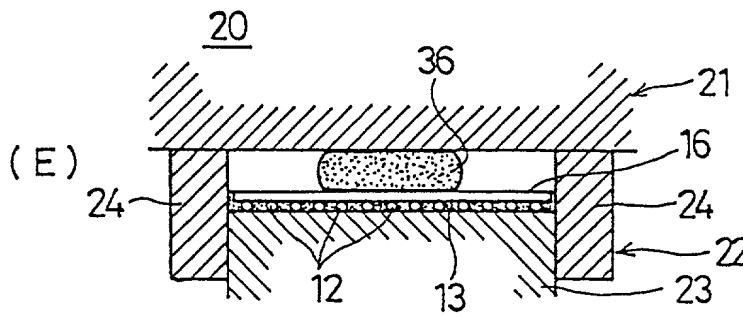
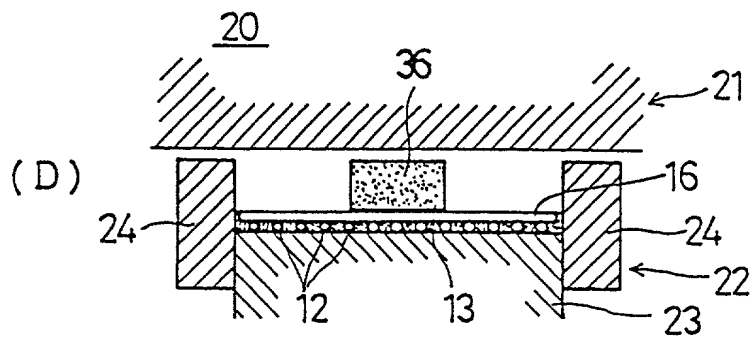
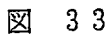
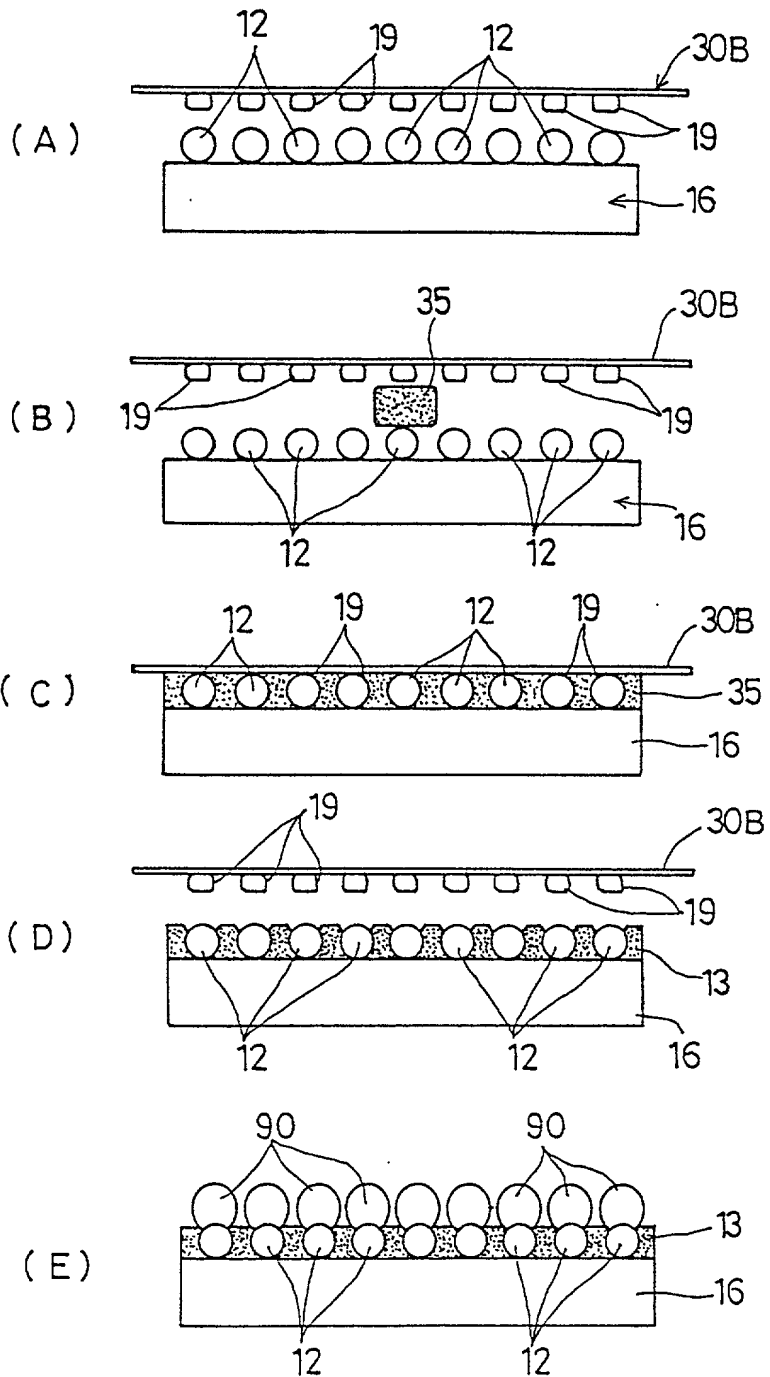
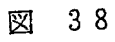
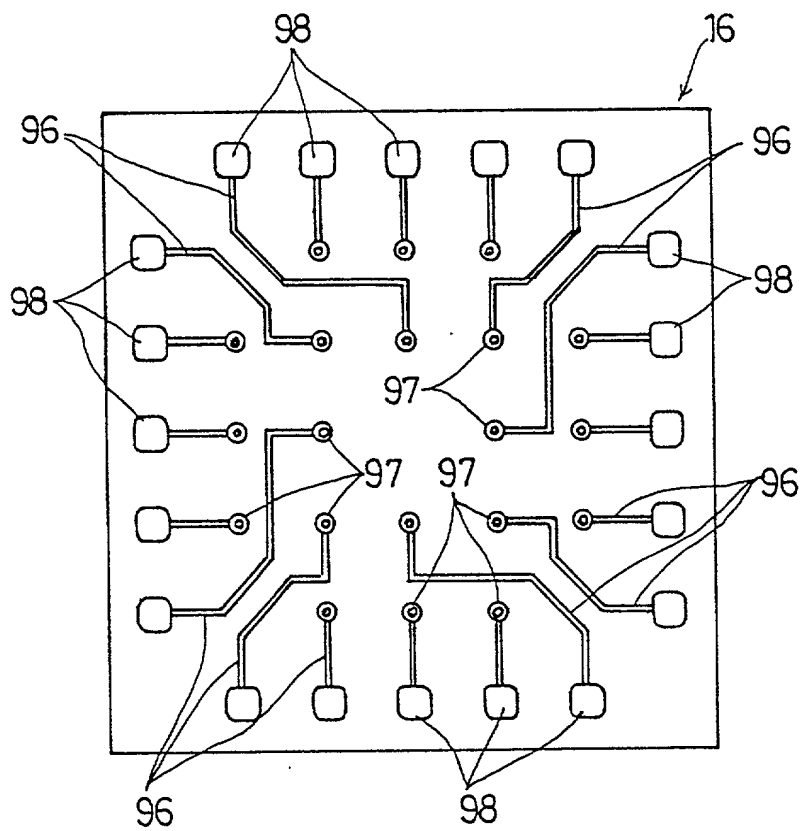


図 32

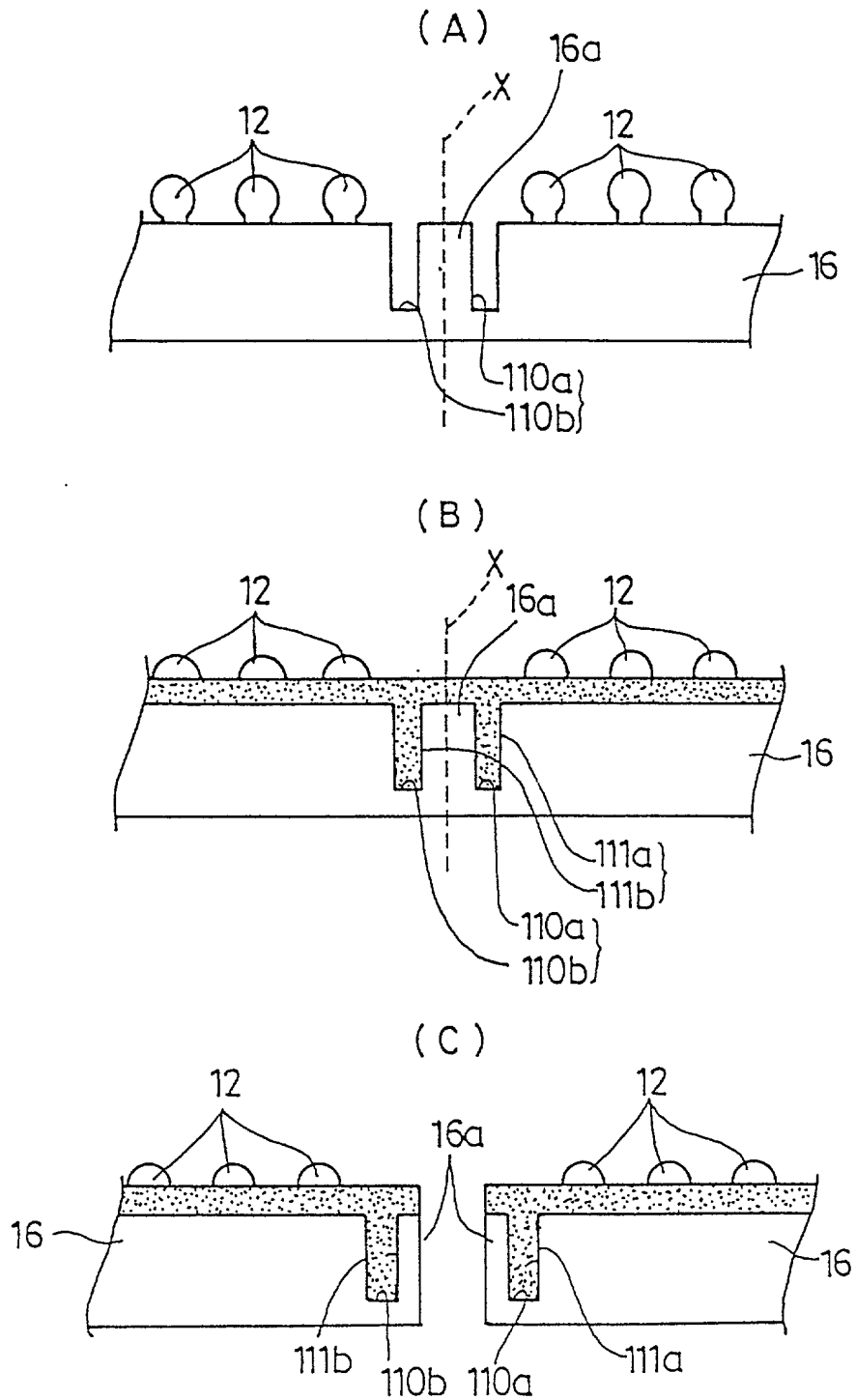




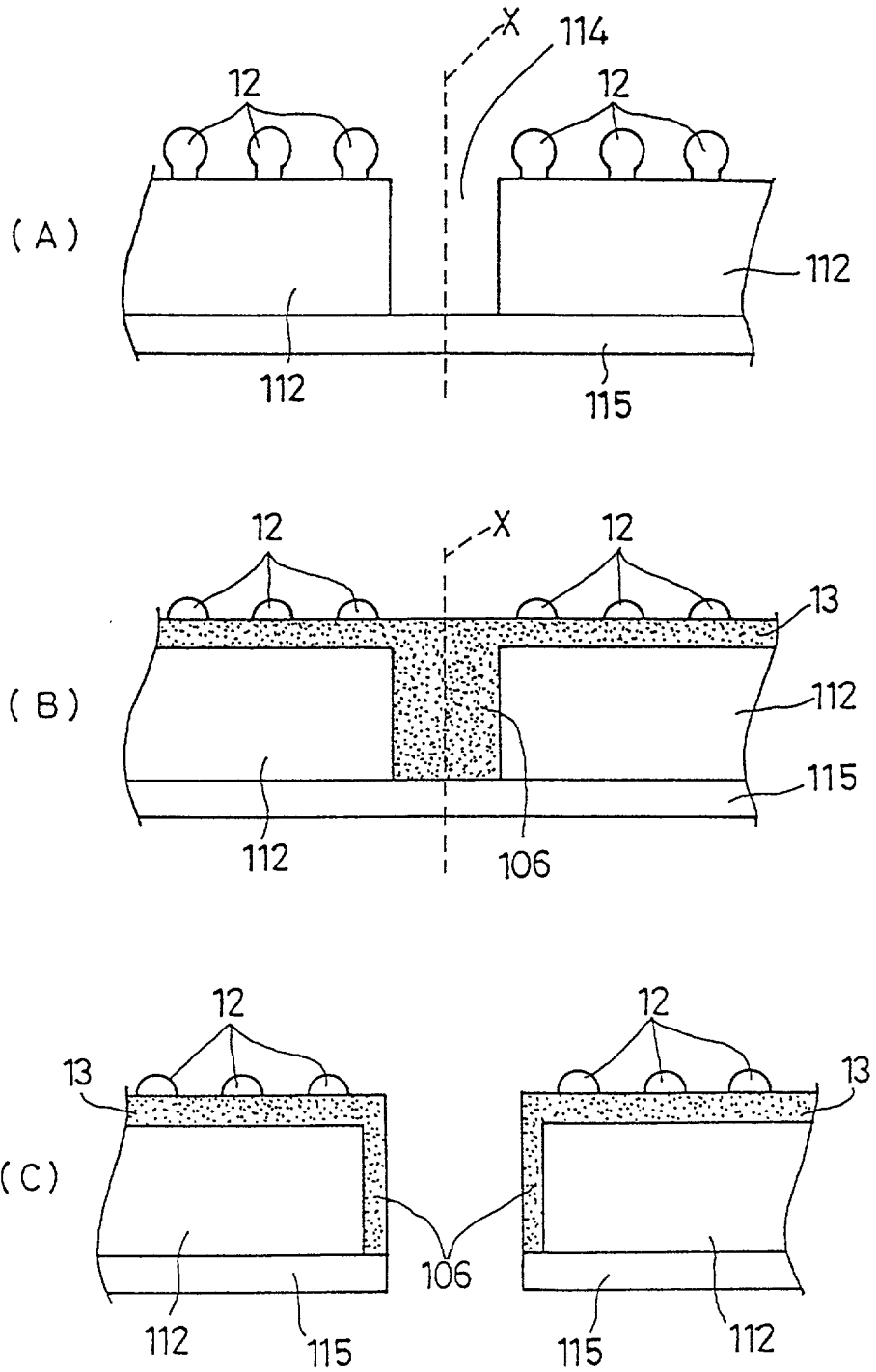




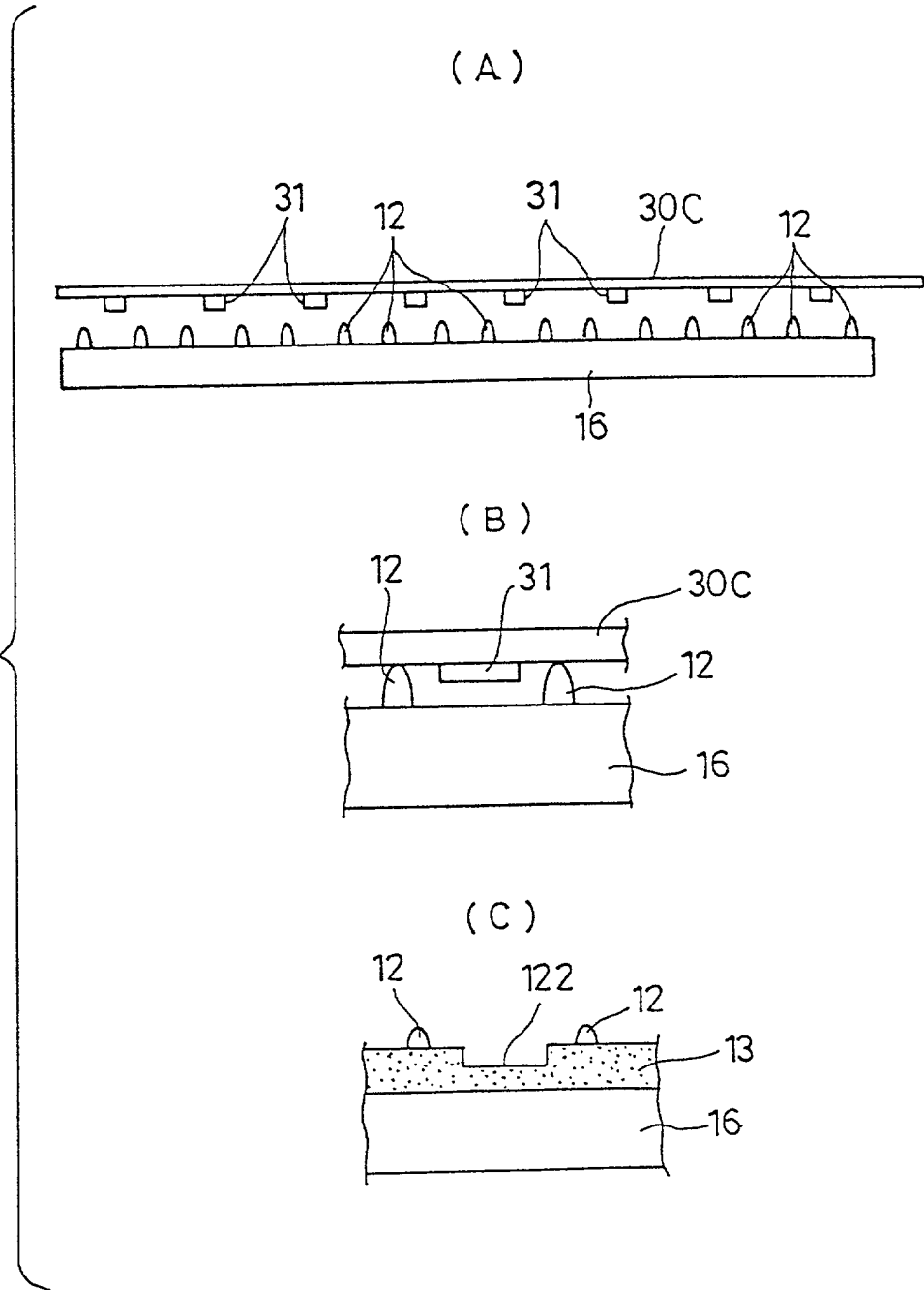
42



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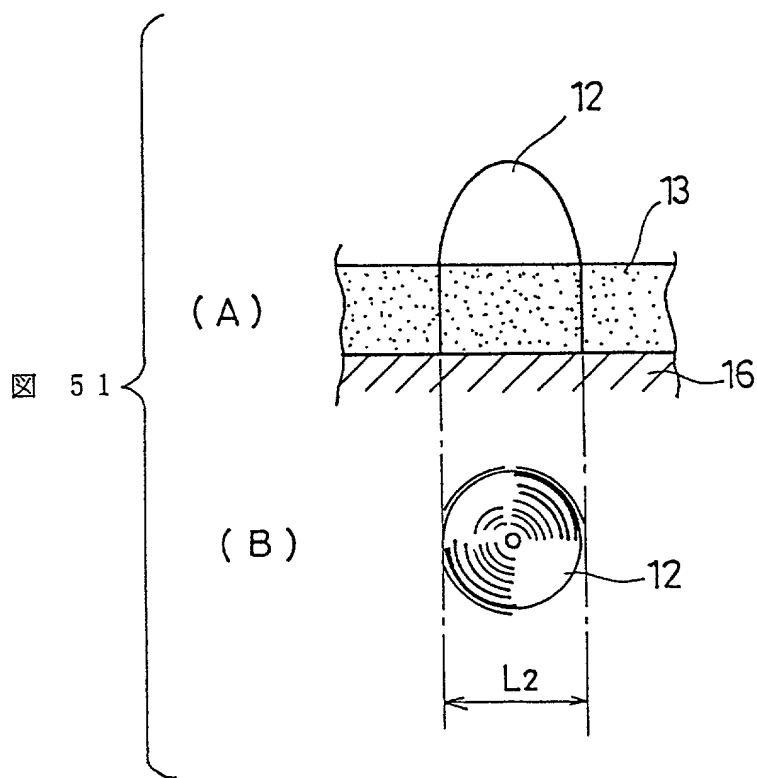
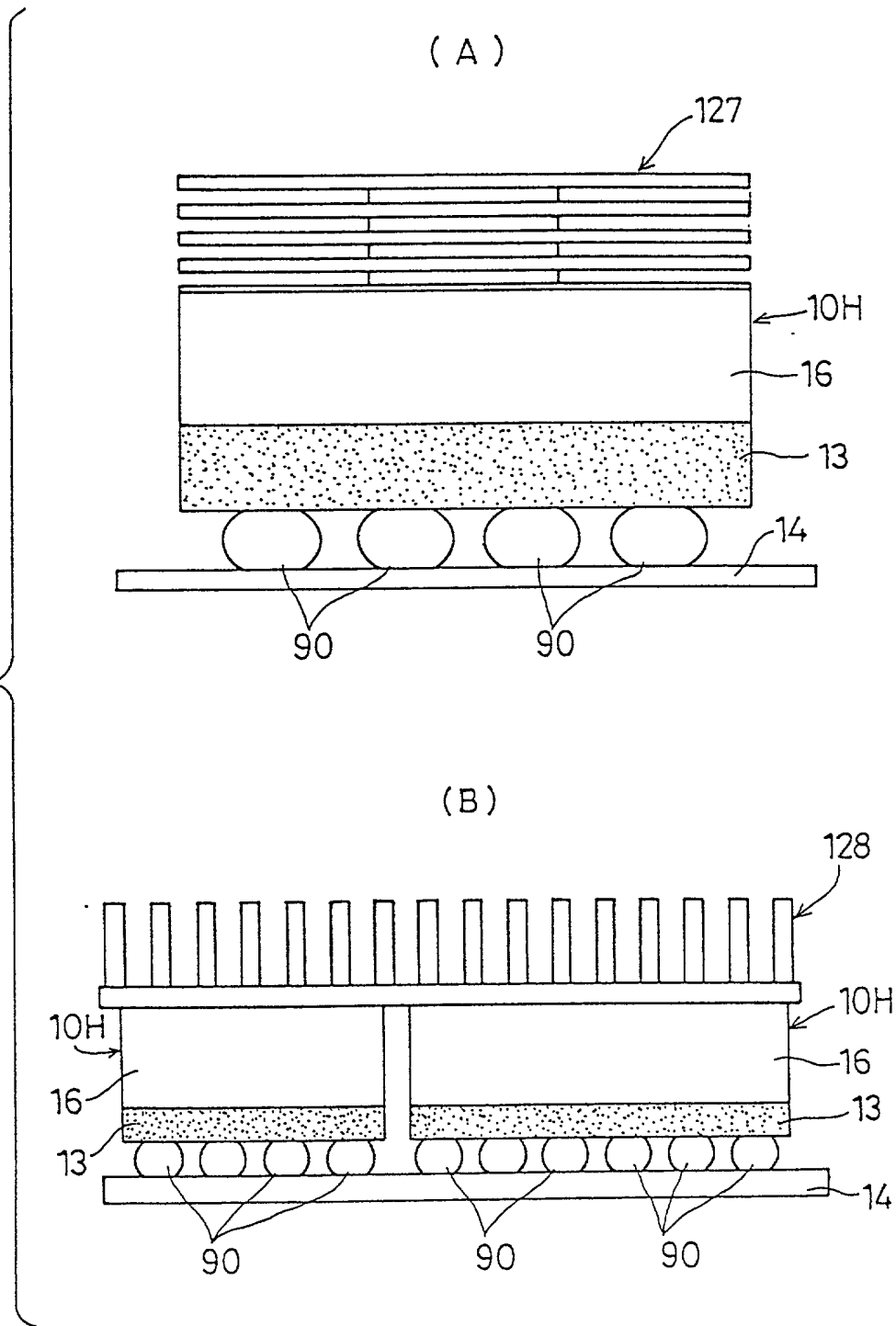


図 54



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图 56

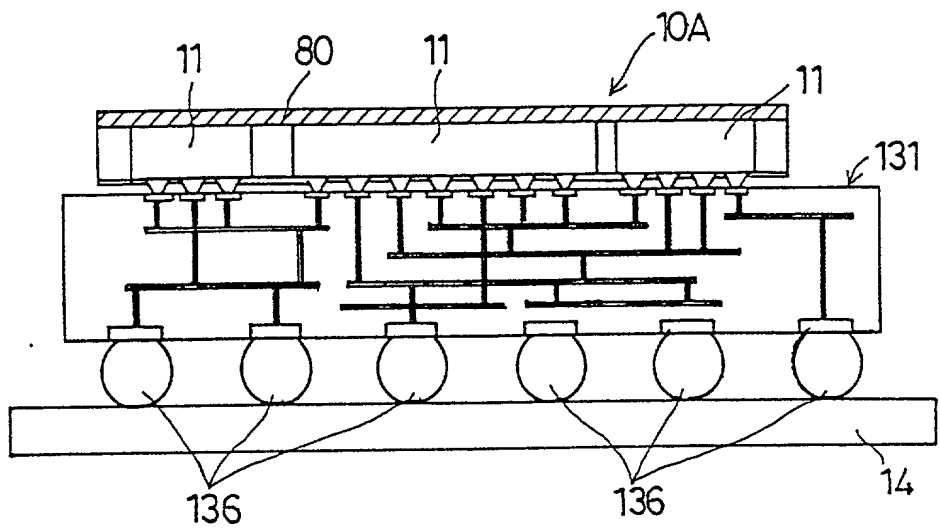
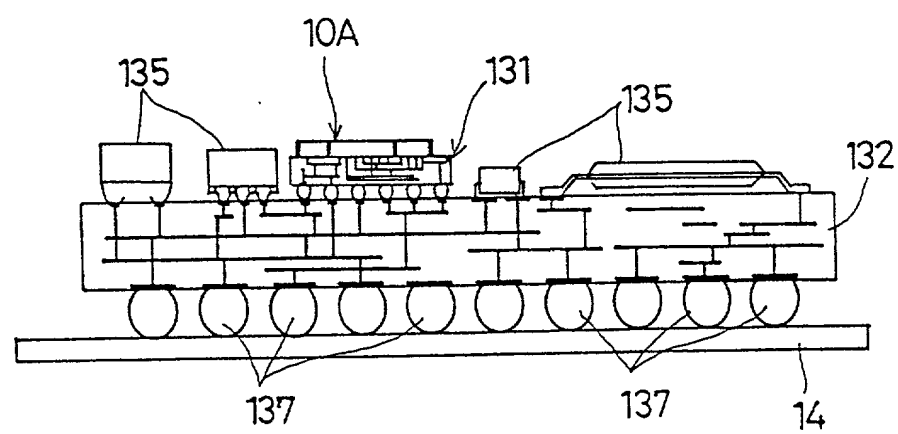
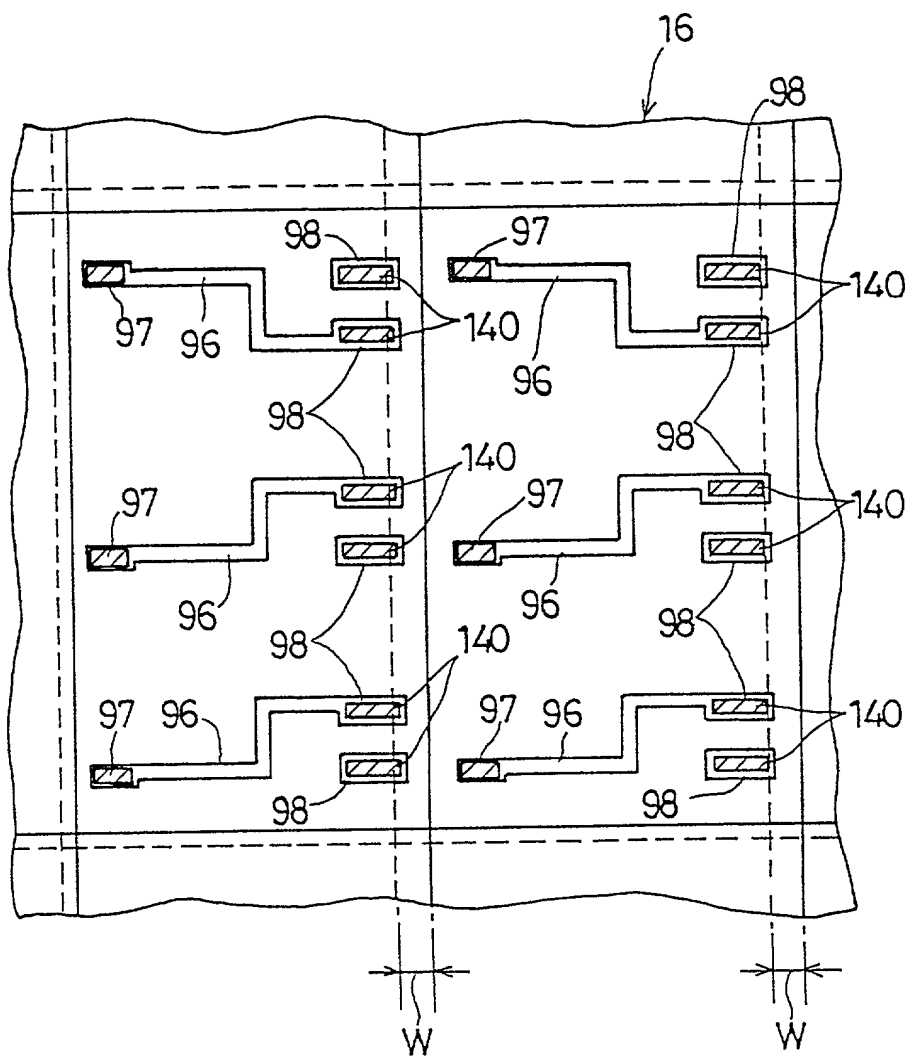
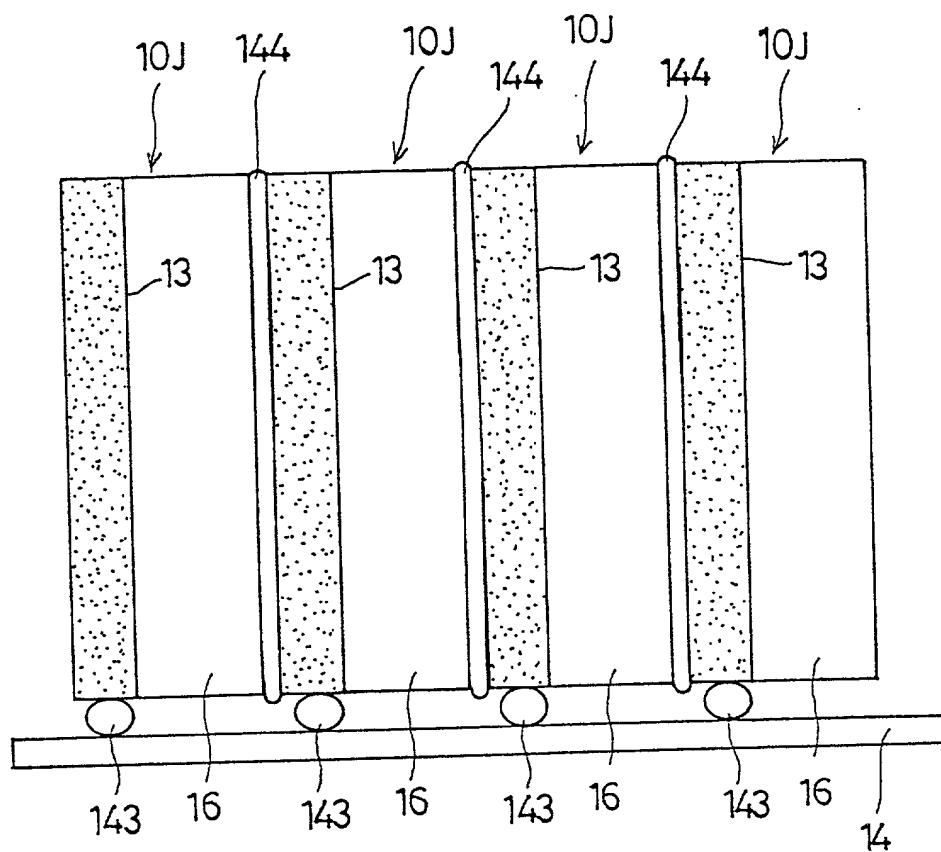


图 57





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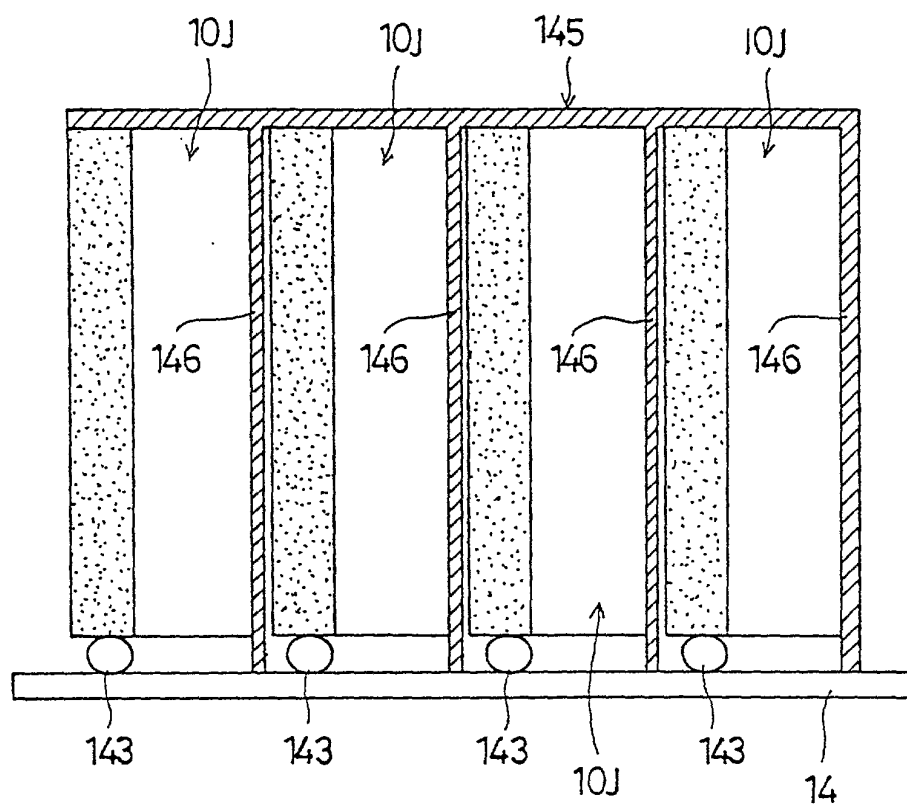
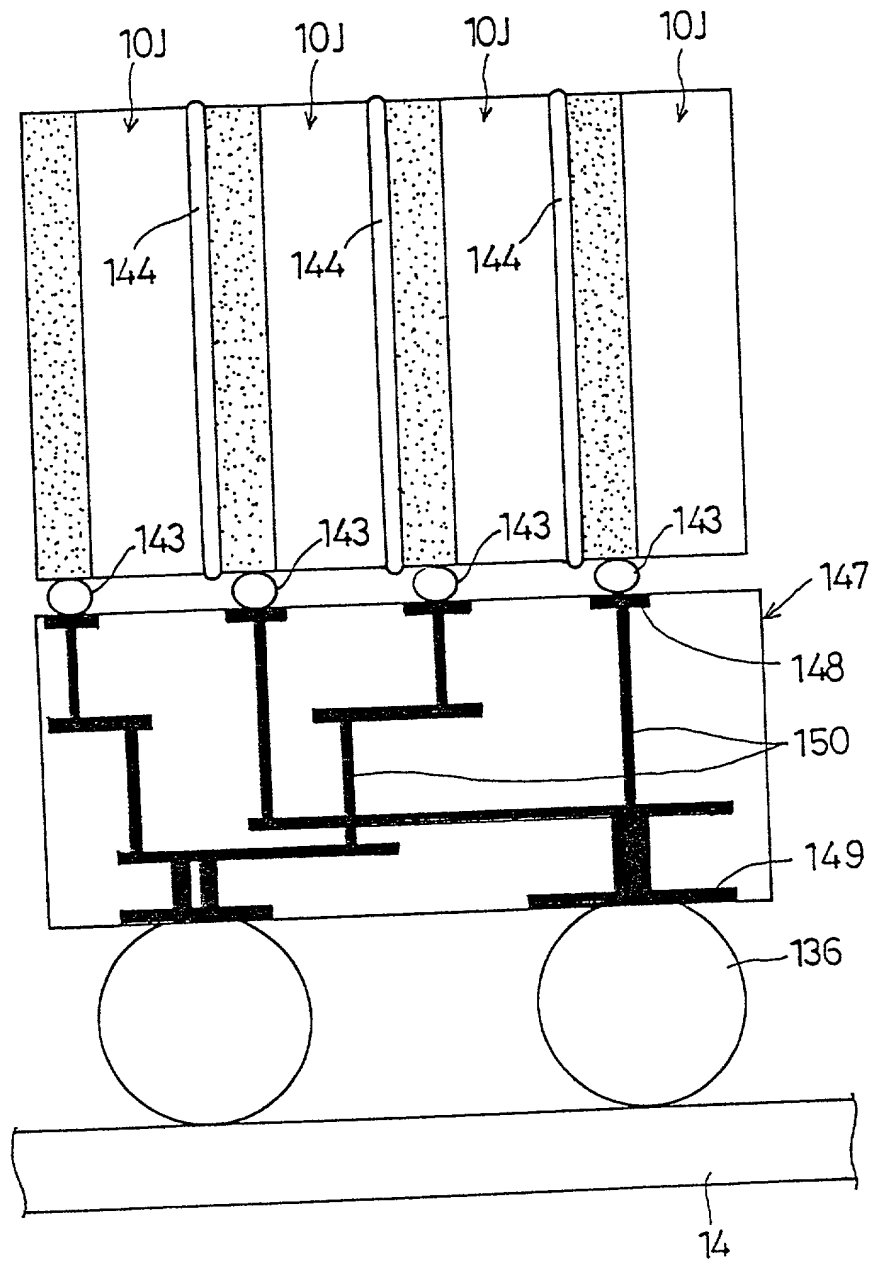


図 67



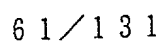
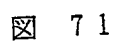
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图 78

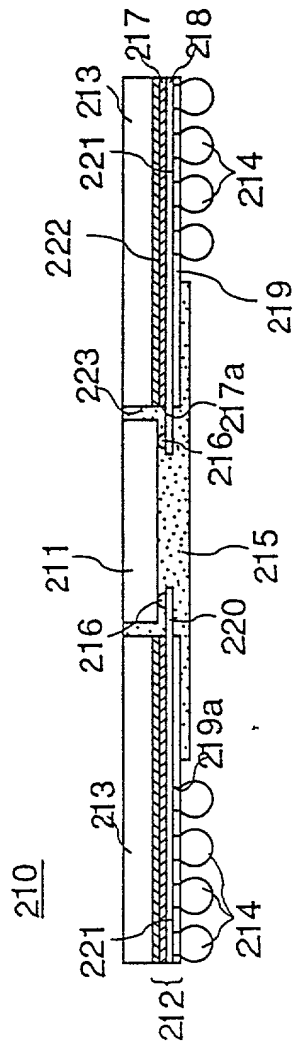
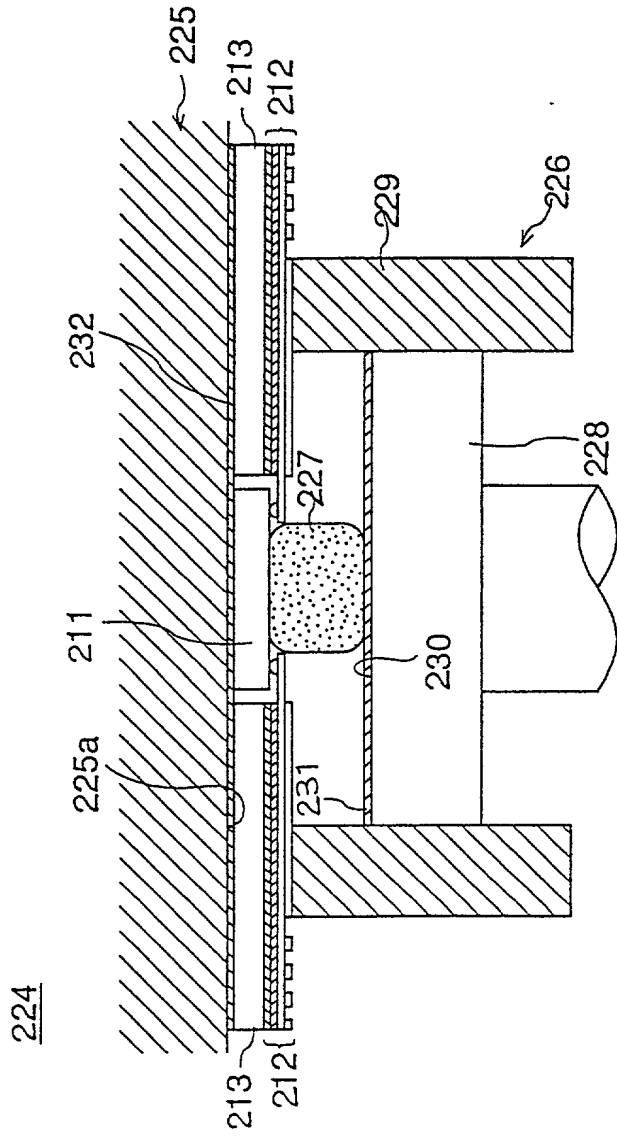
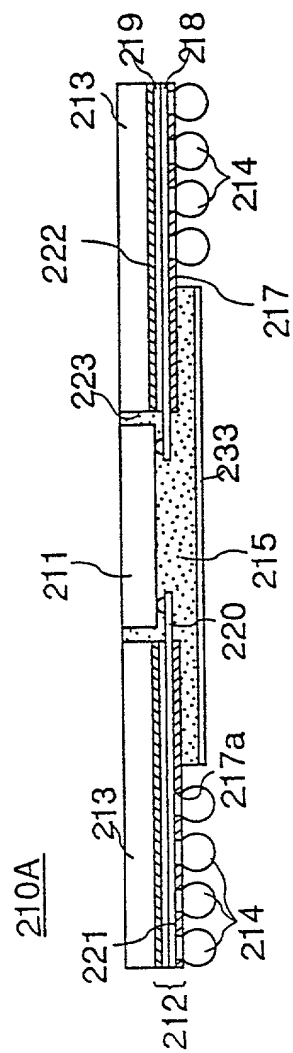


FIG. 80



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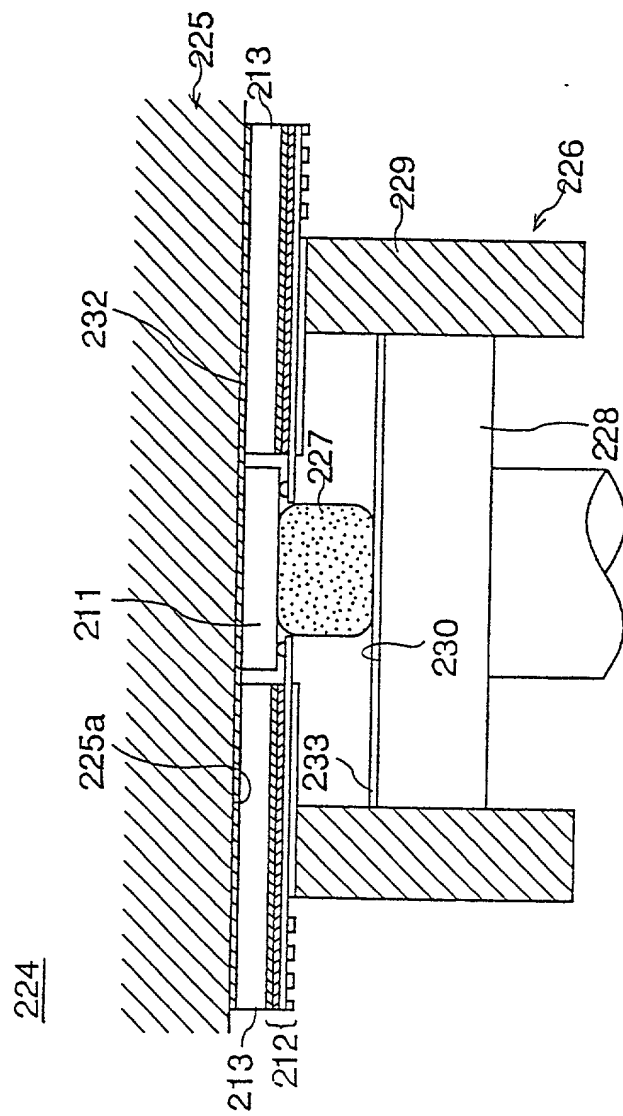
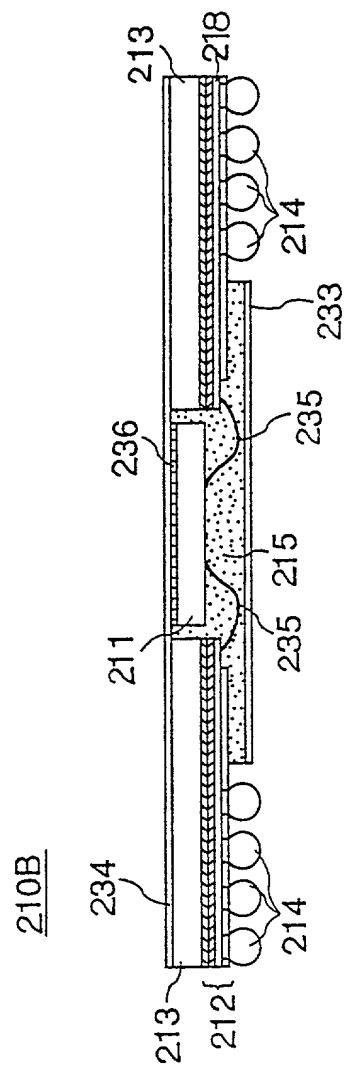
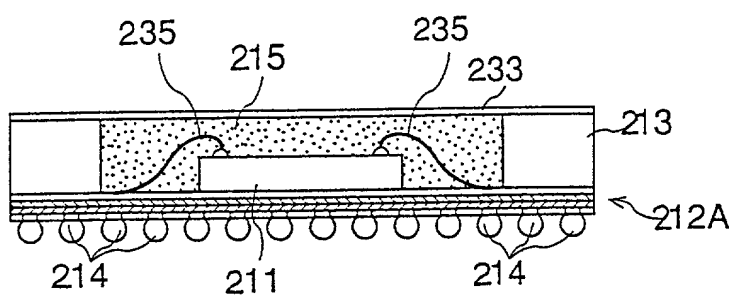


Fig. 8A

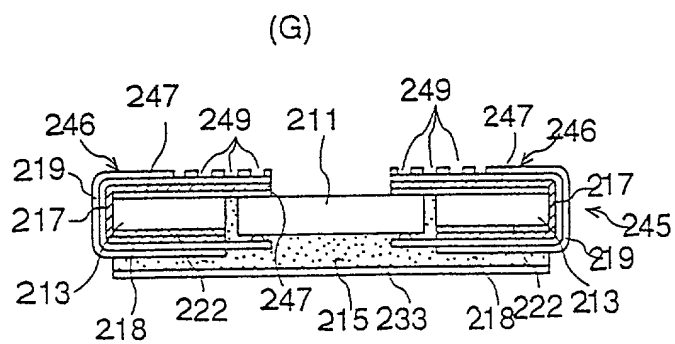
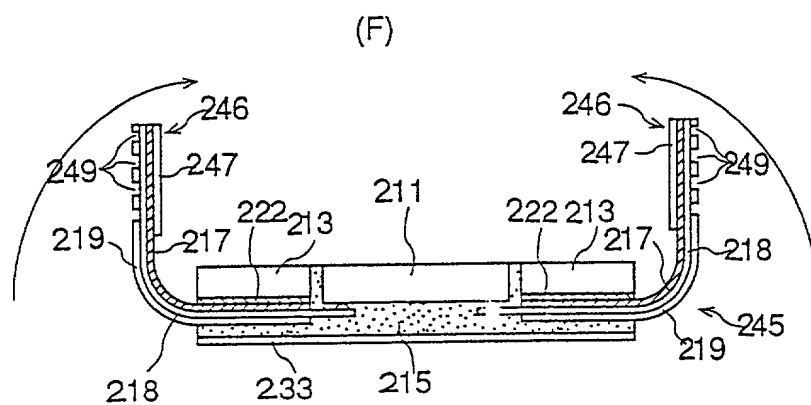
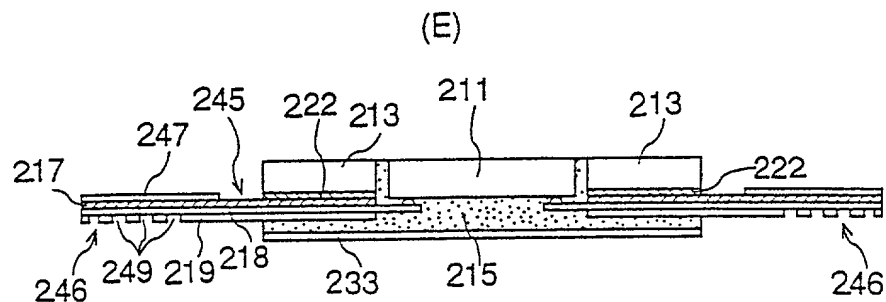


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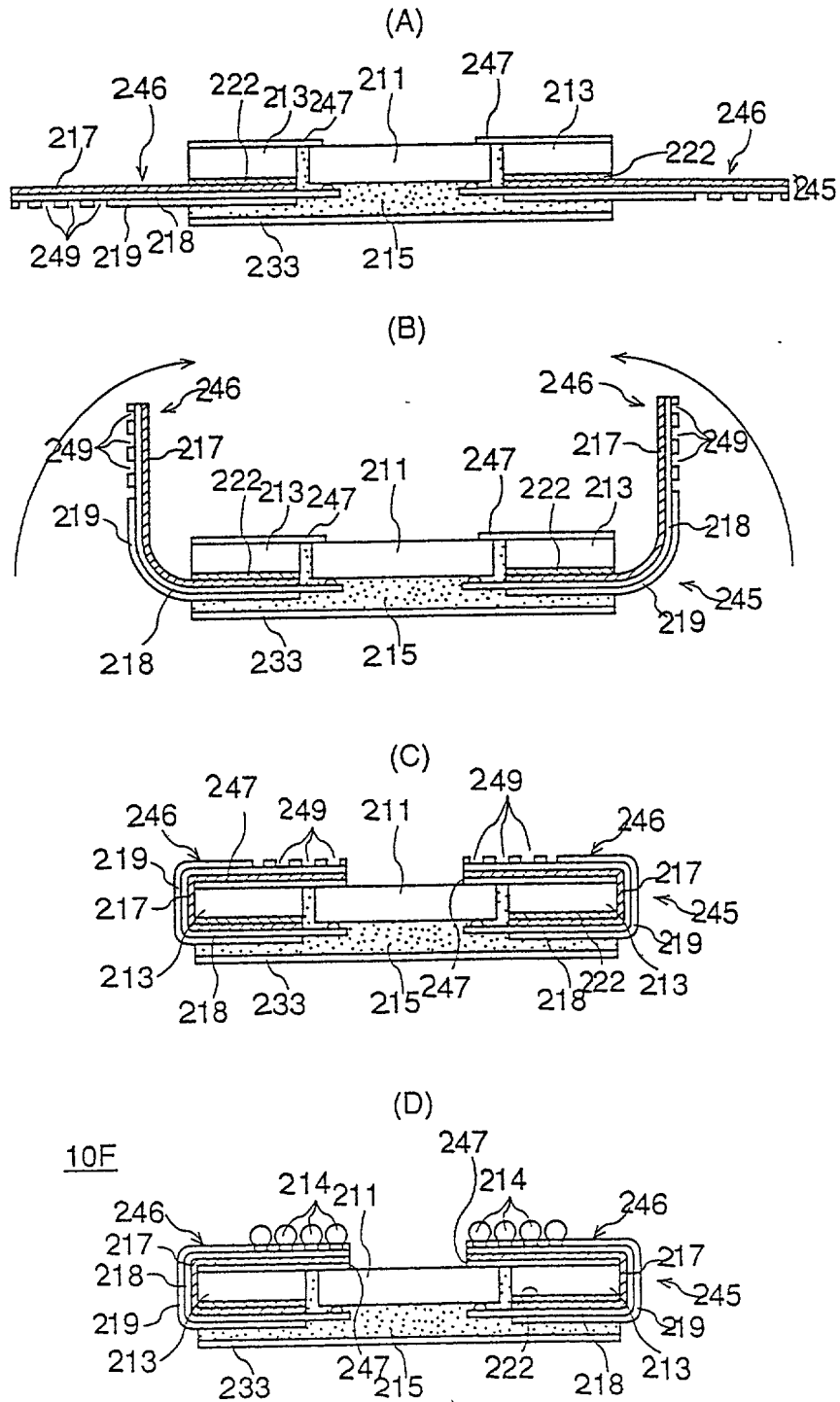
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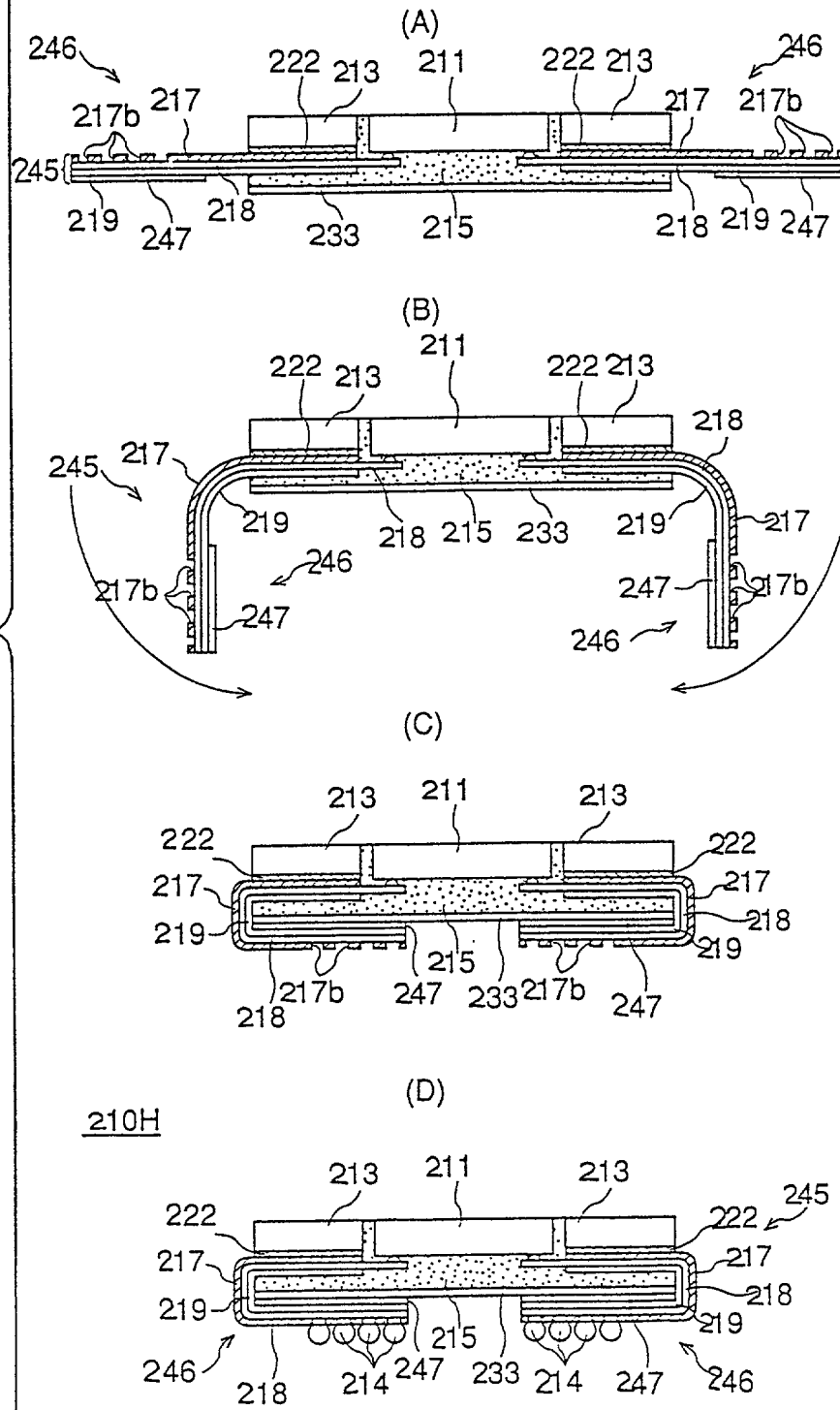
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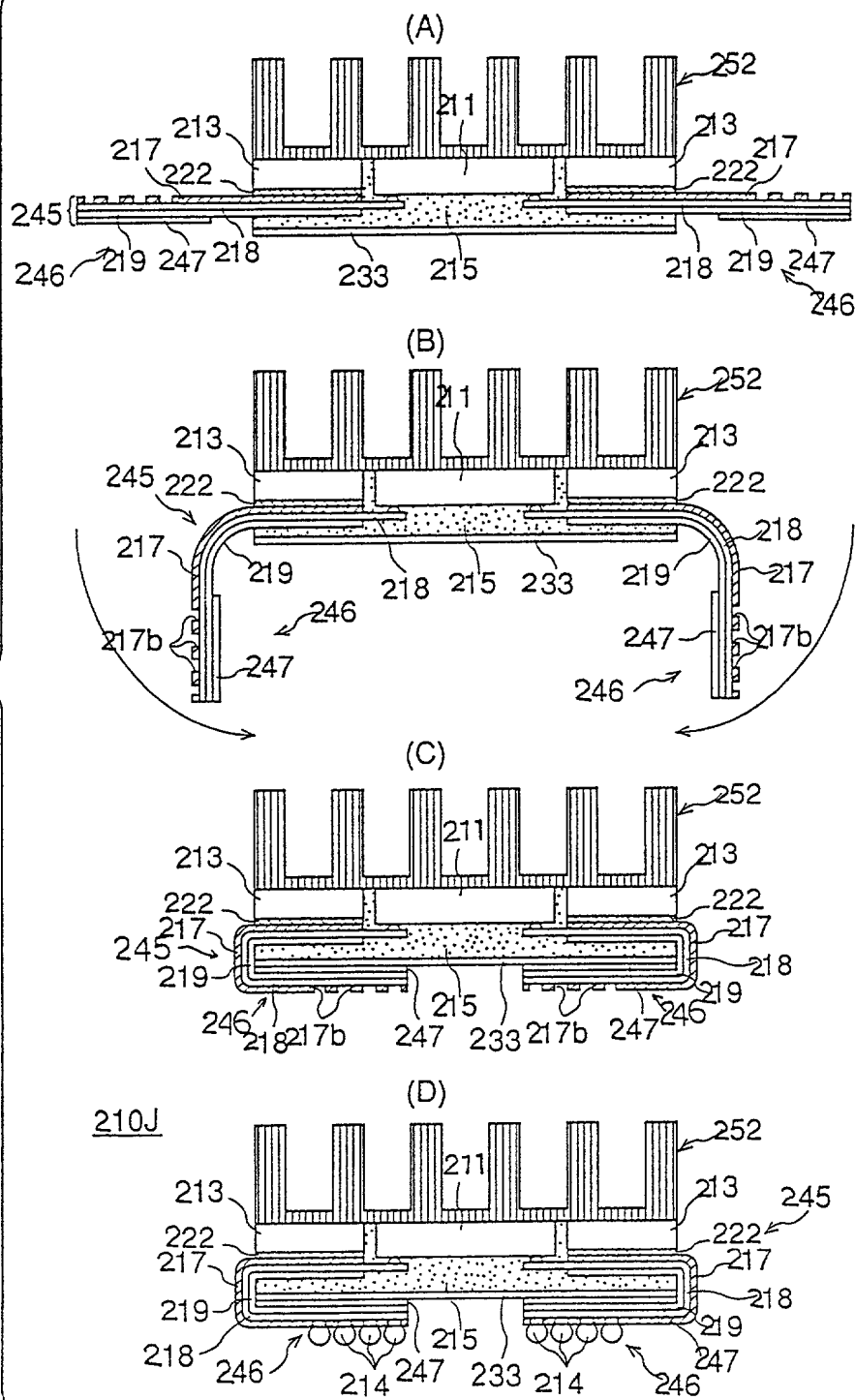
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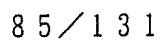


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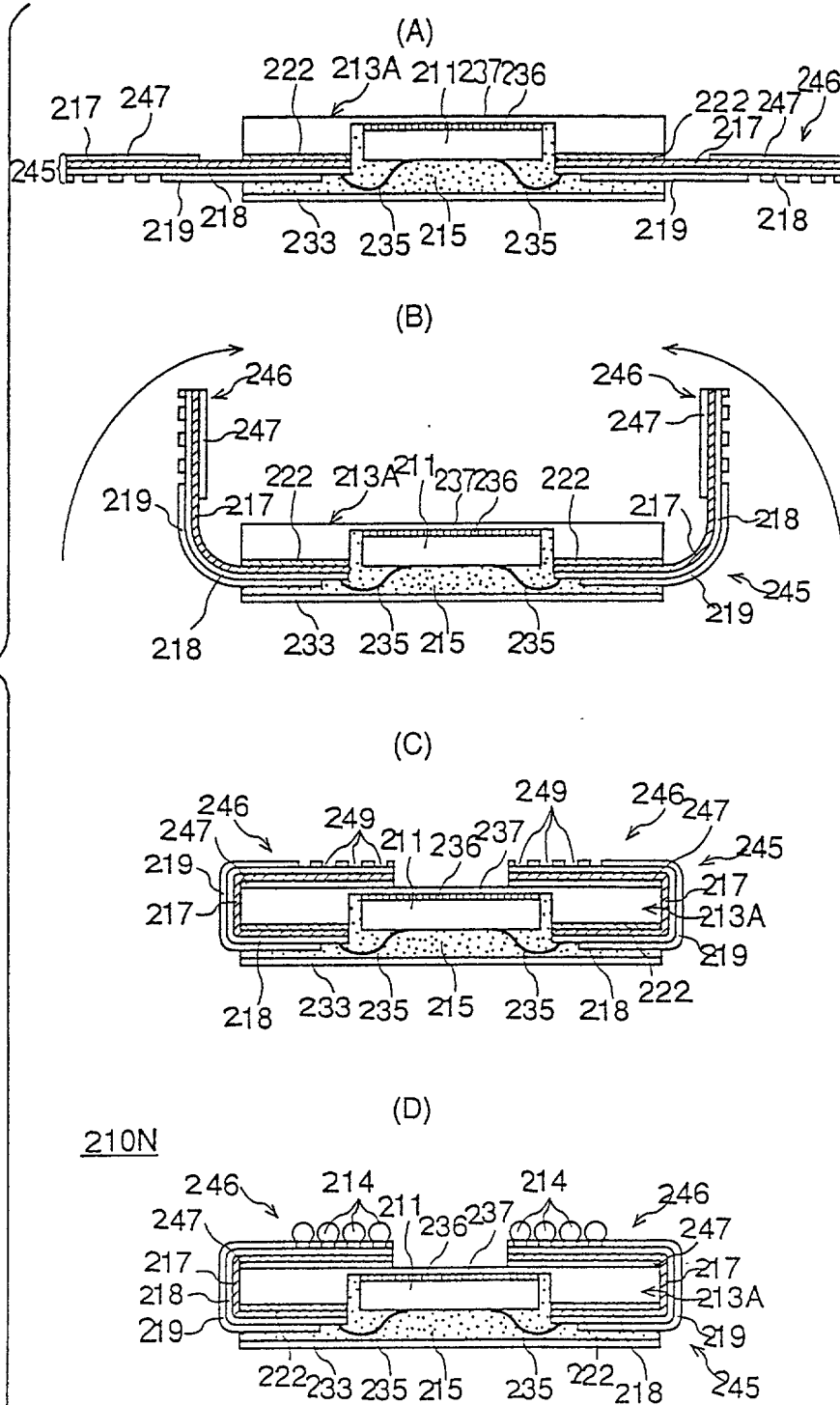
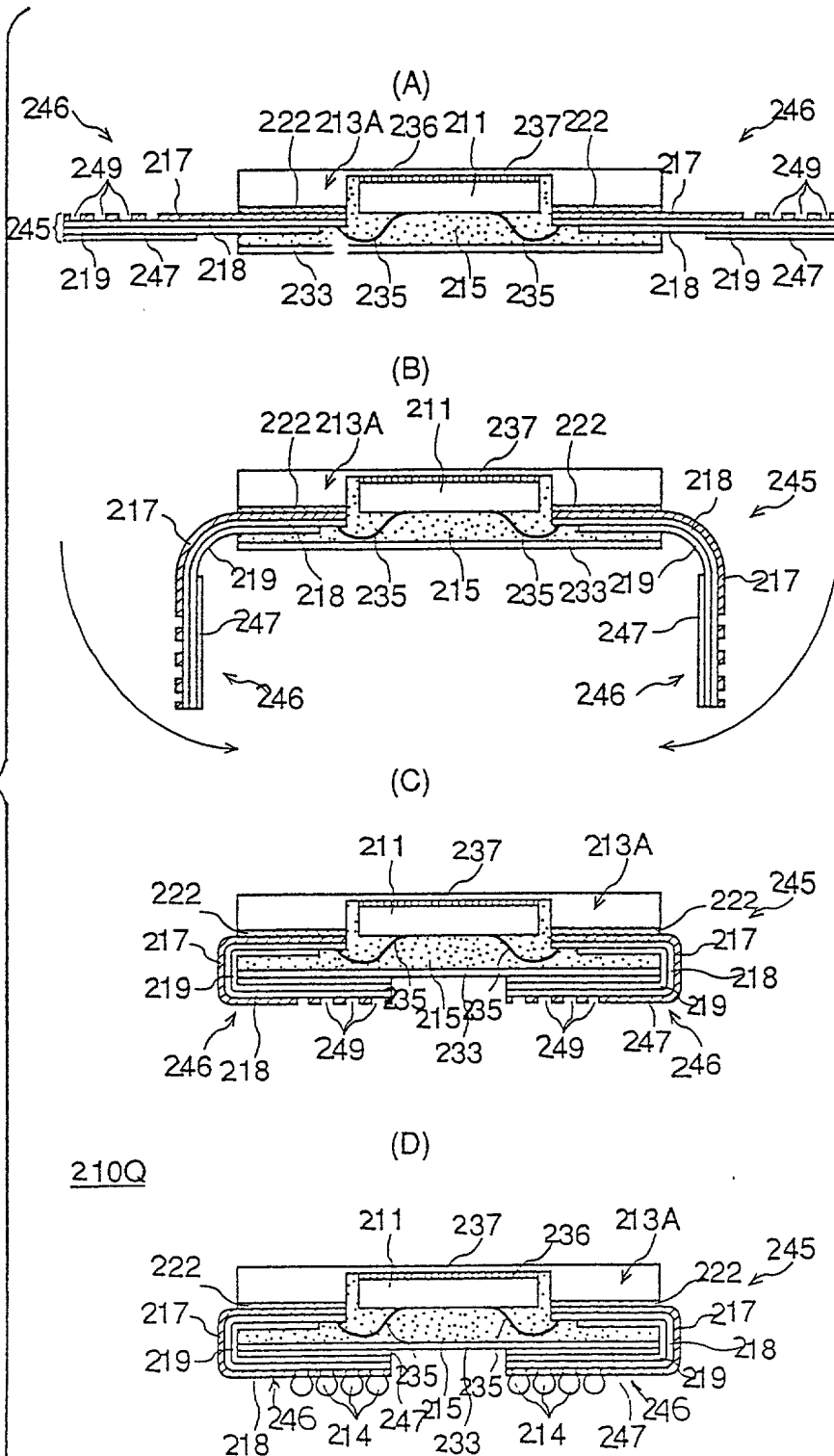
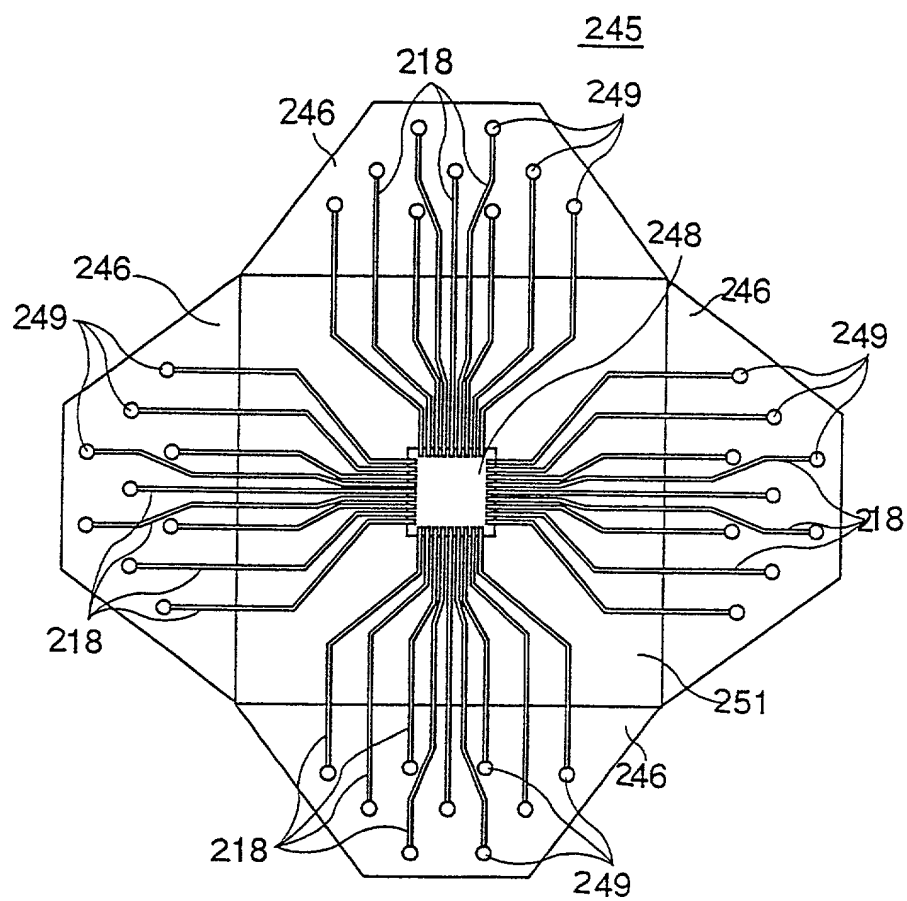


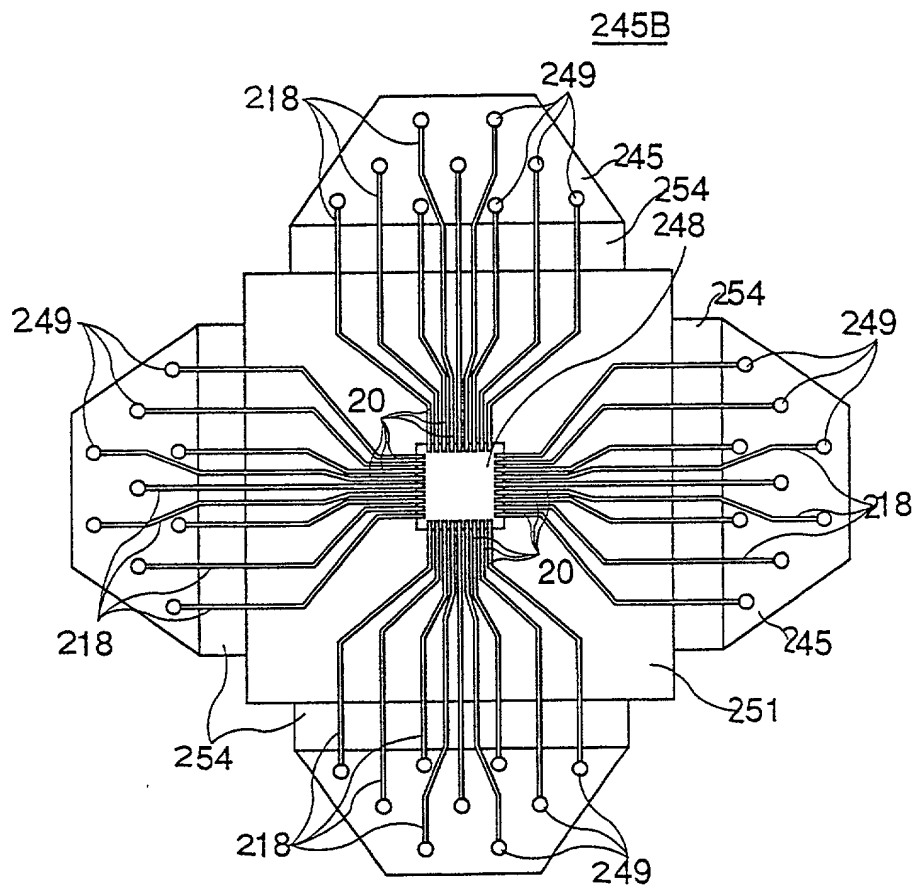
FIG. 101



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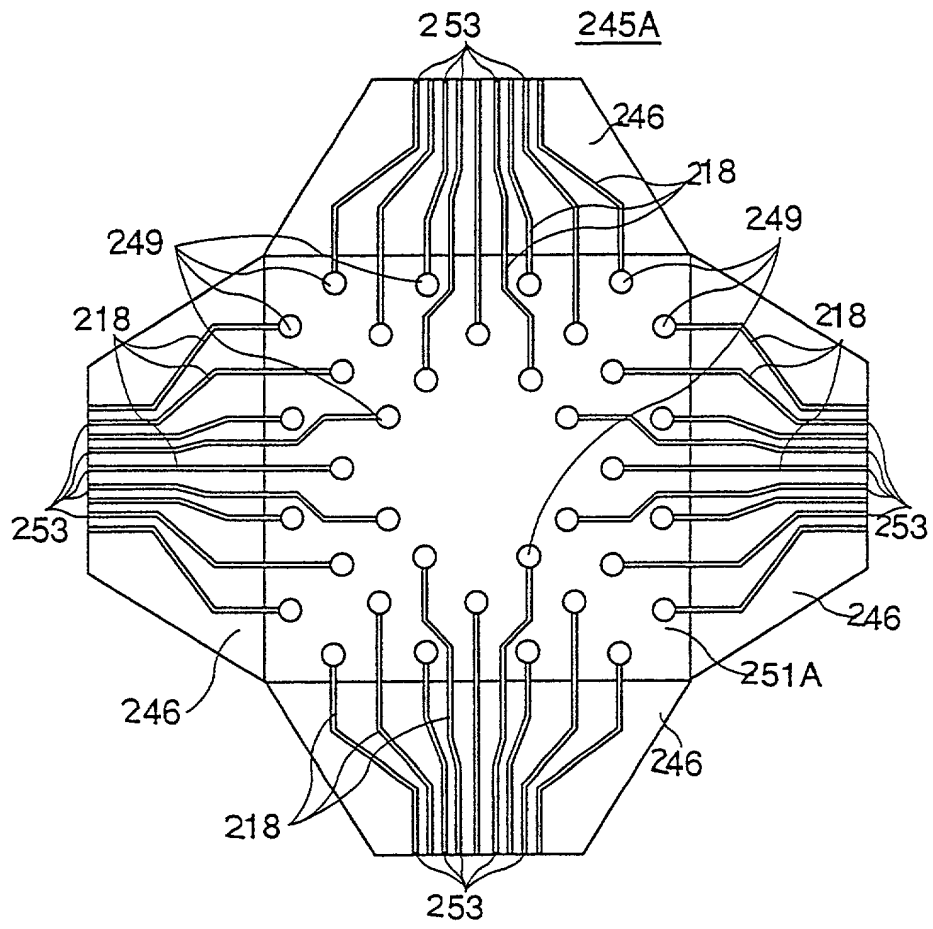


図 108

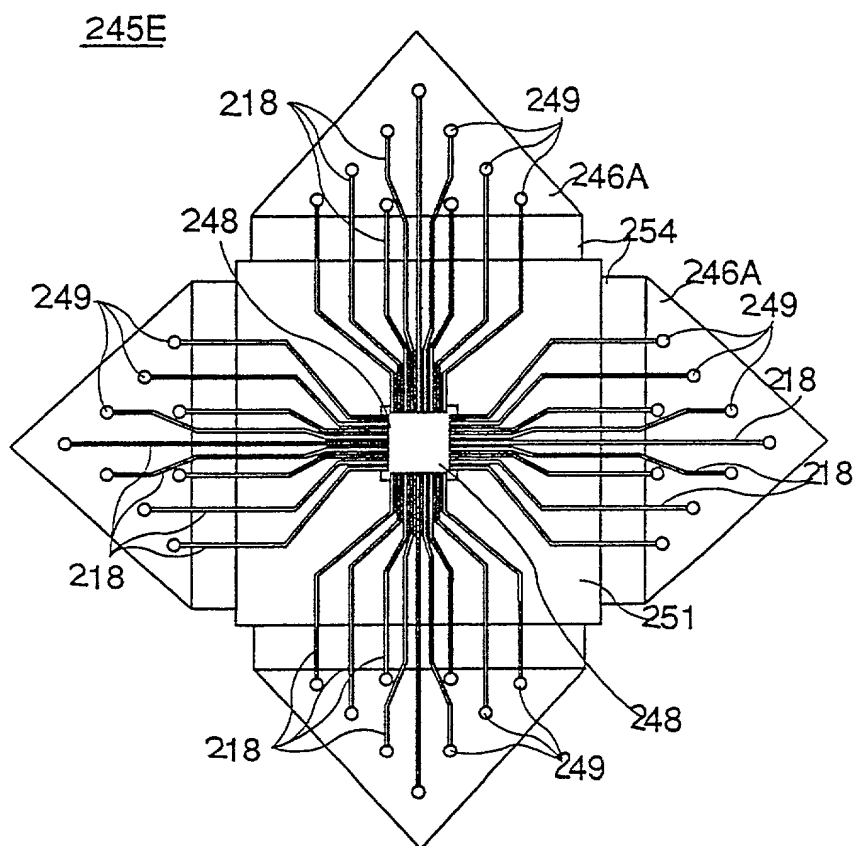


FIG. 110

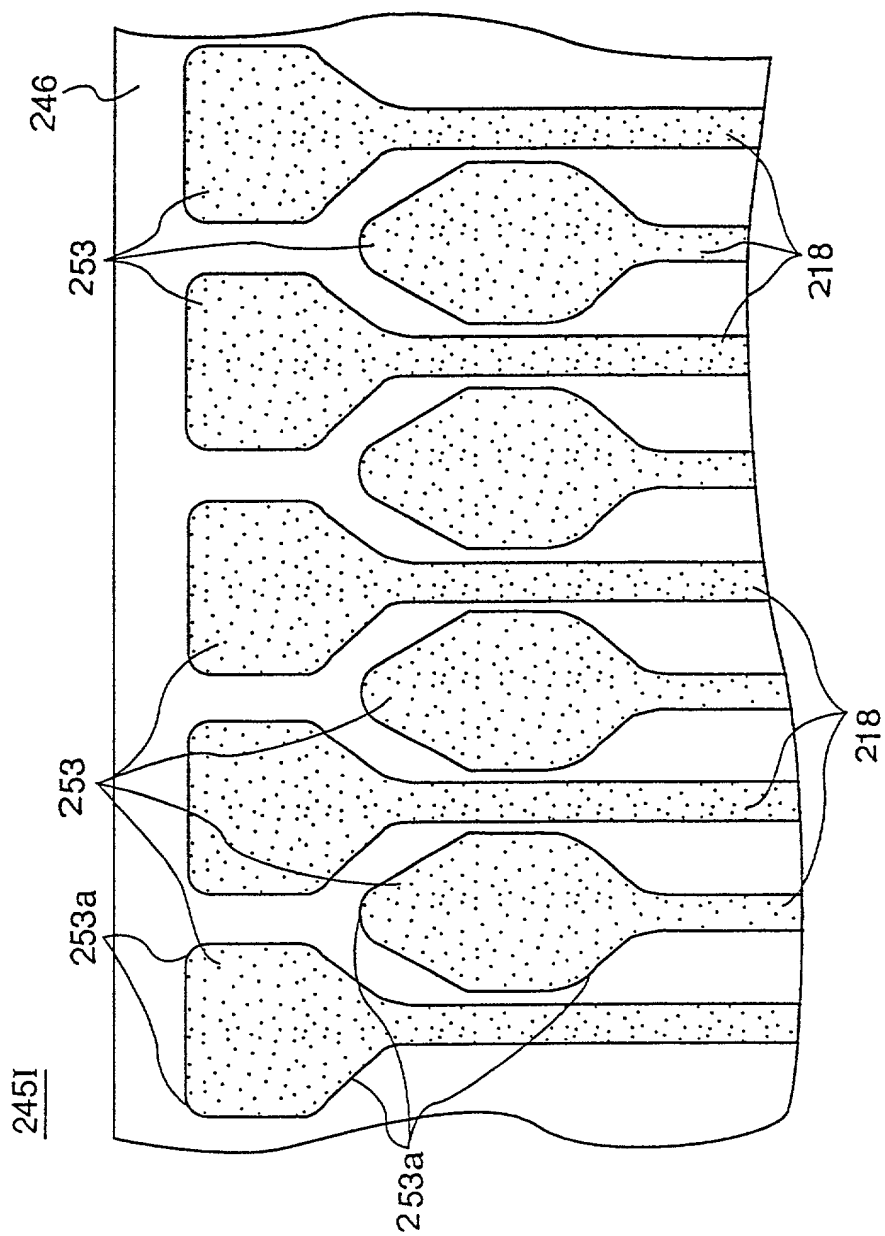
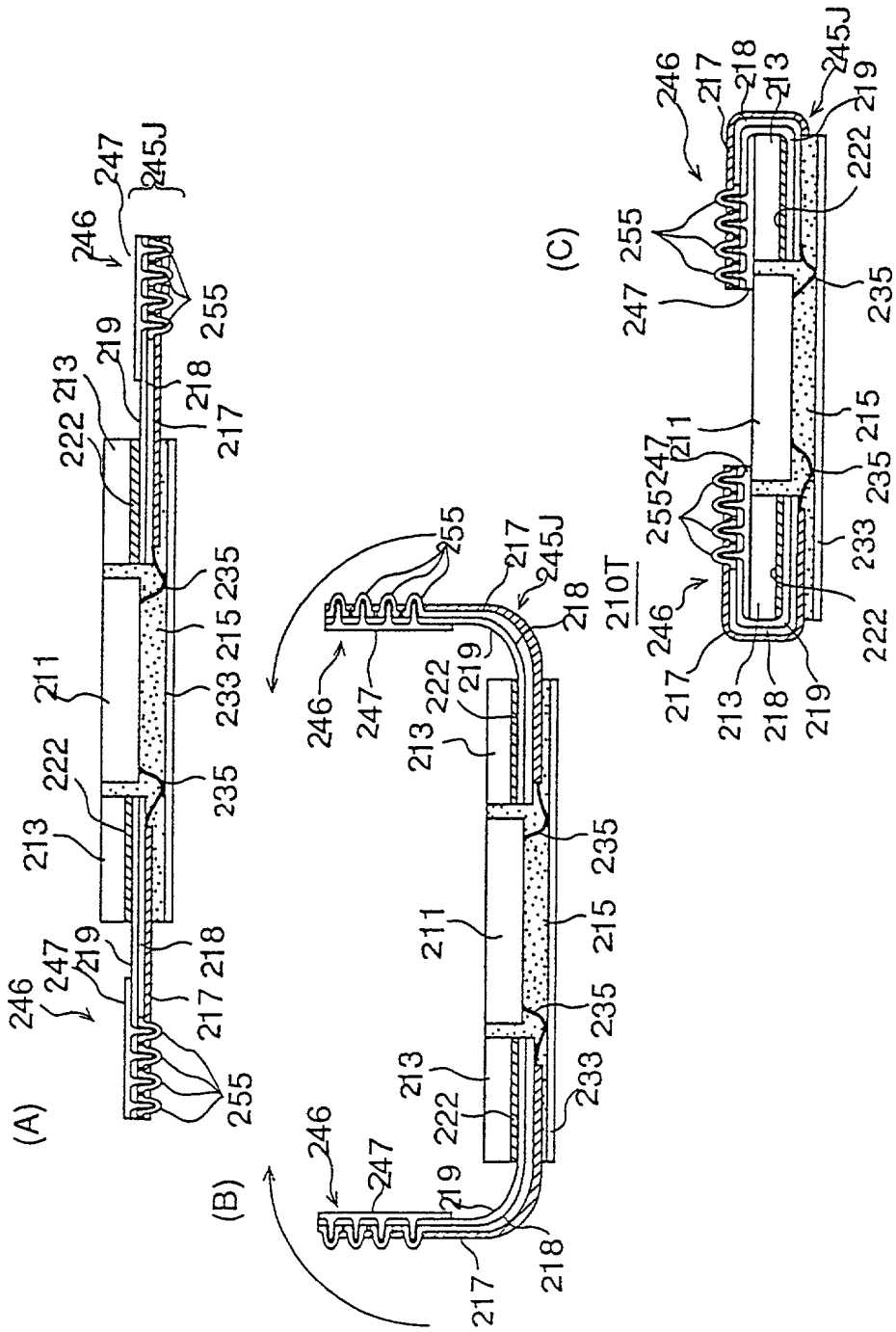
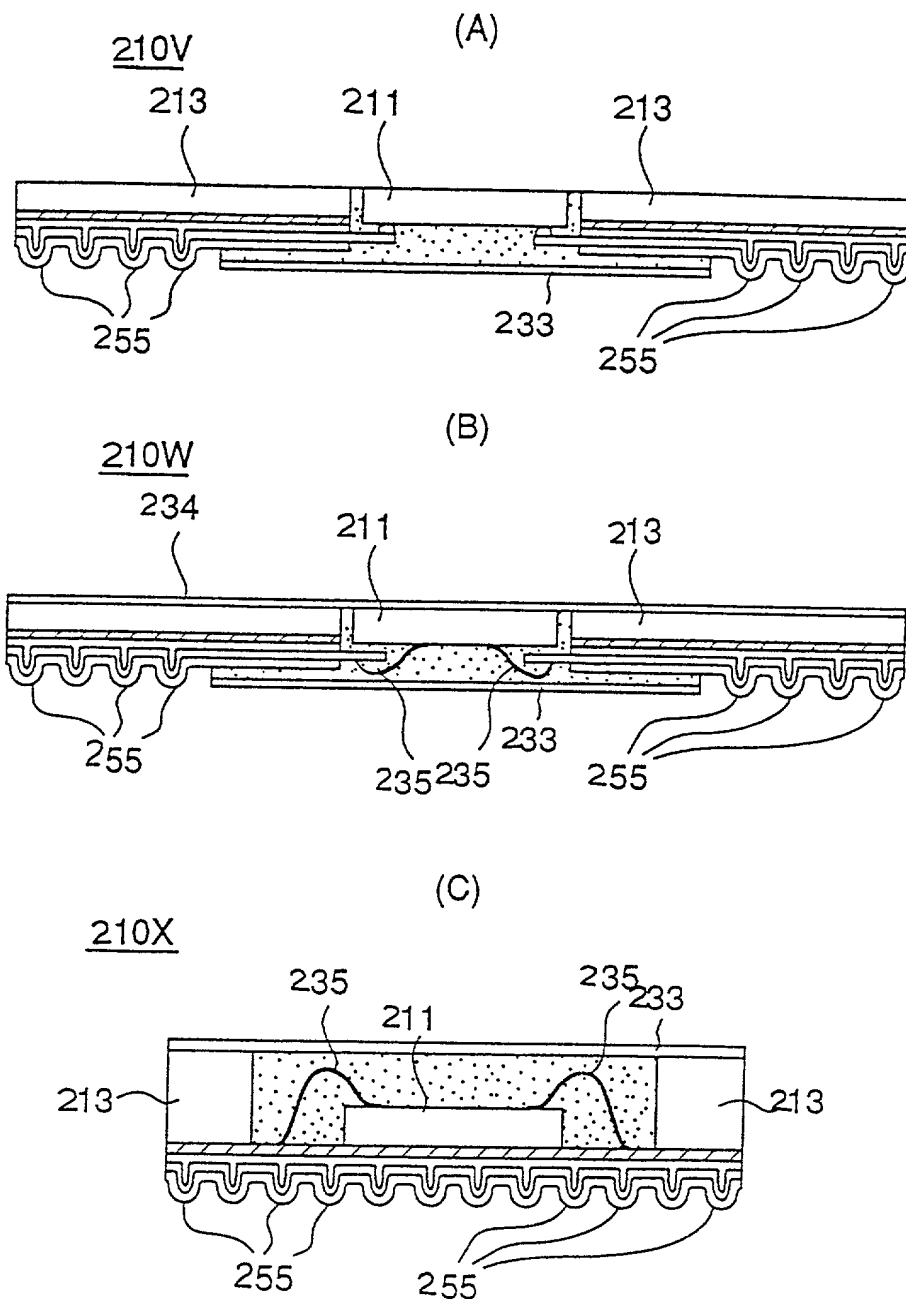


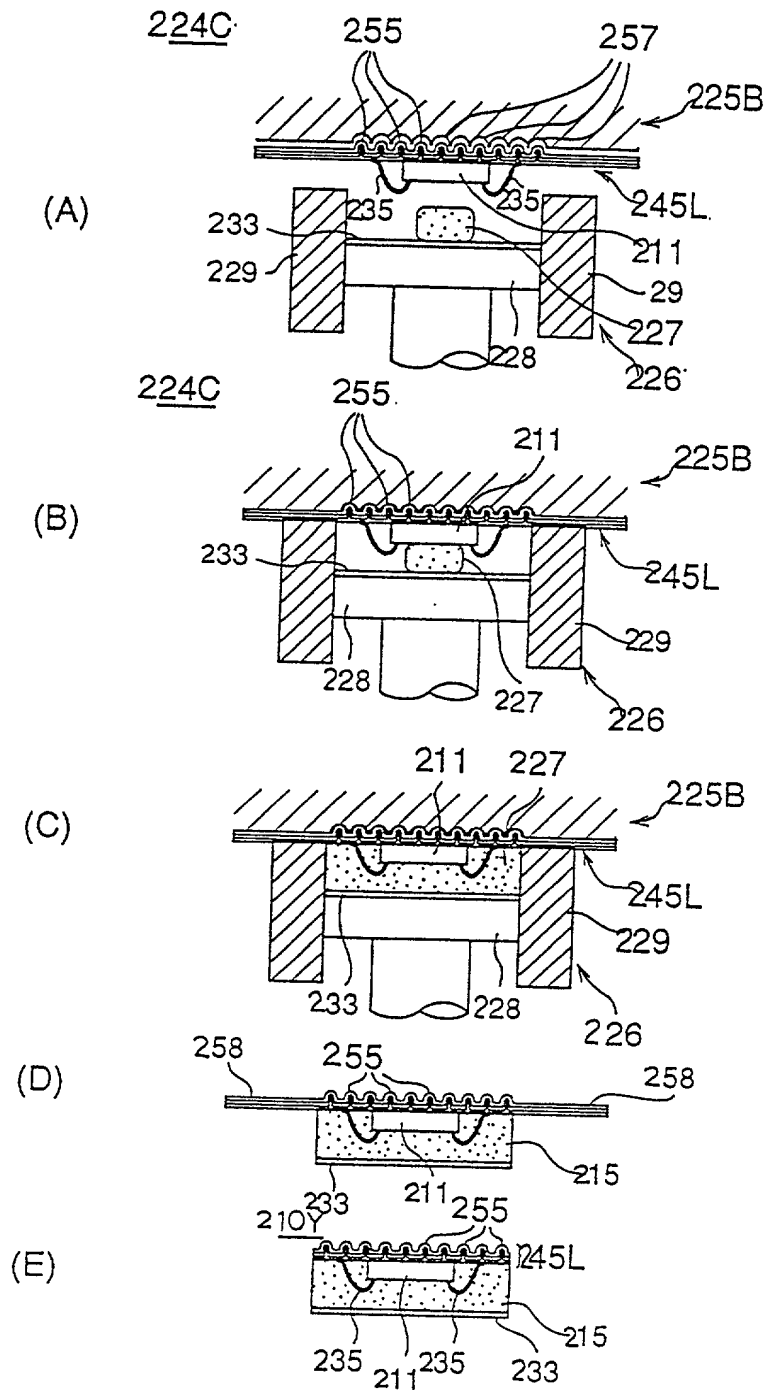
FIG. 114



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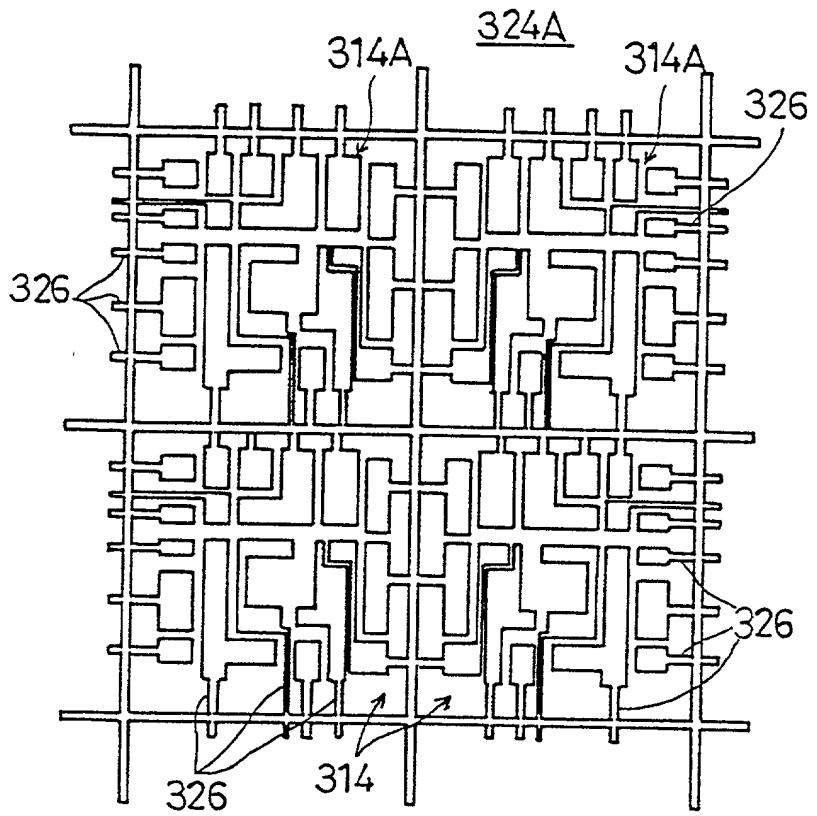


117



119

(A)



(B)

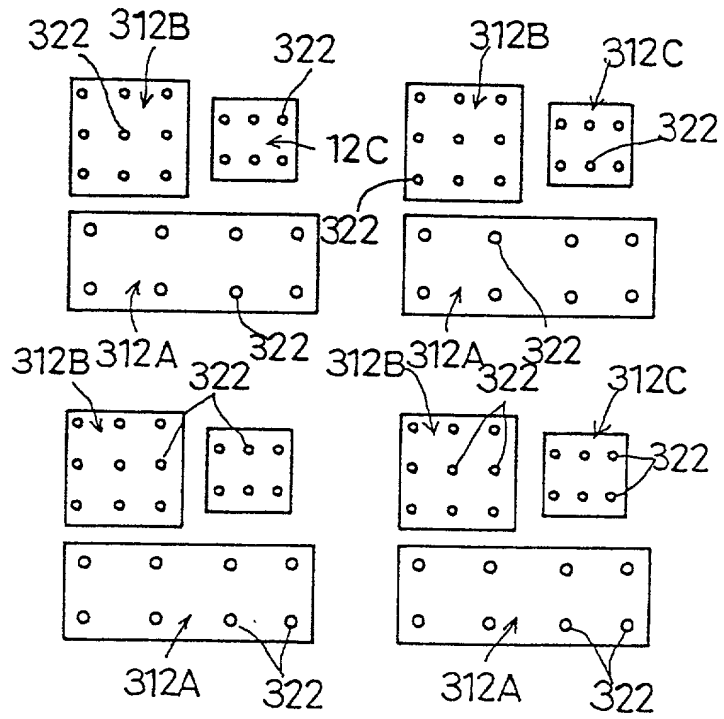


圖 126

324B

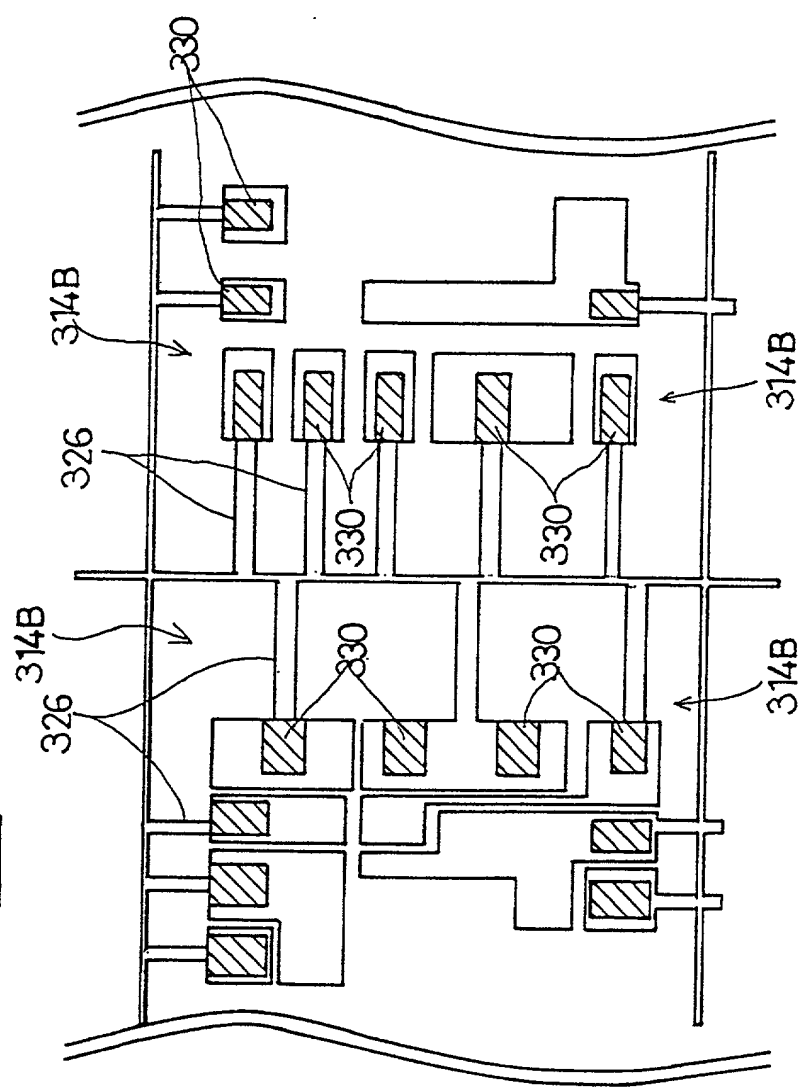


图 128

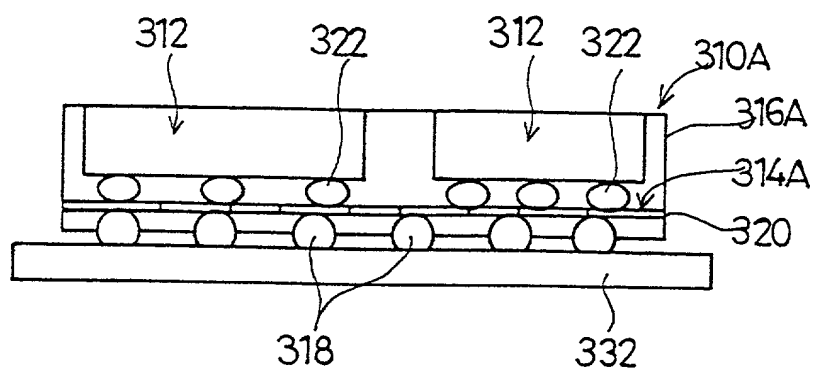


图 129

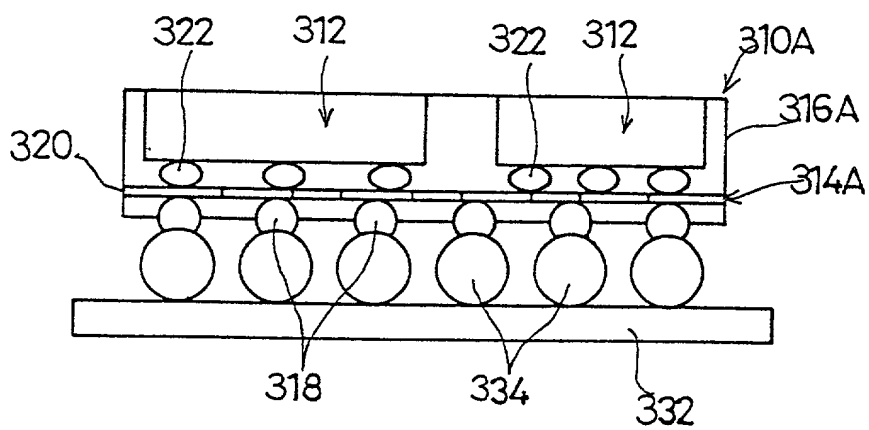


FIG. 132

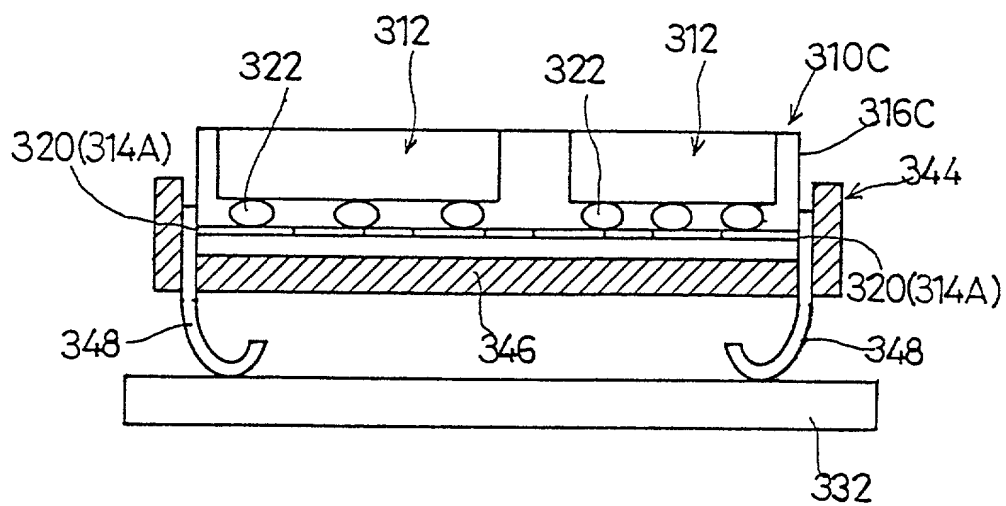
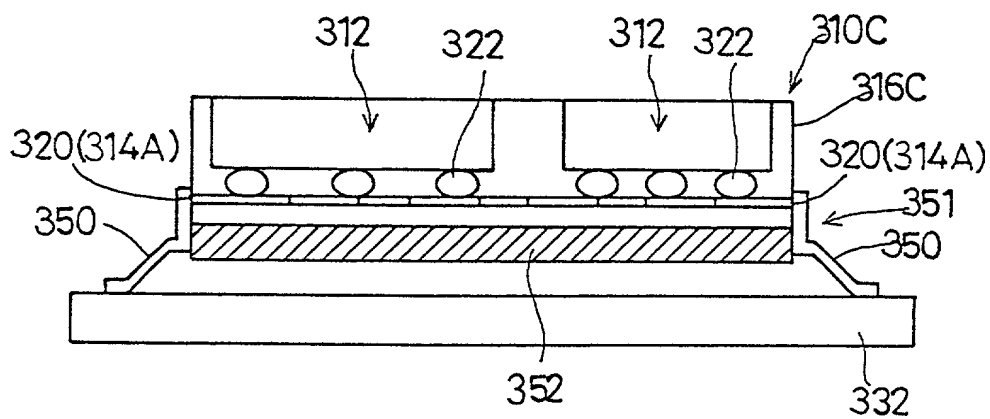


FIG. 133



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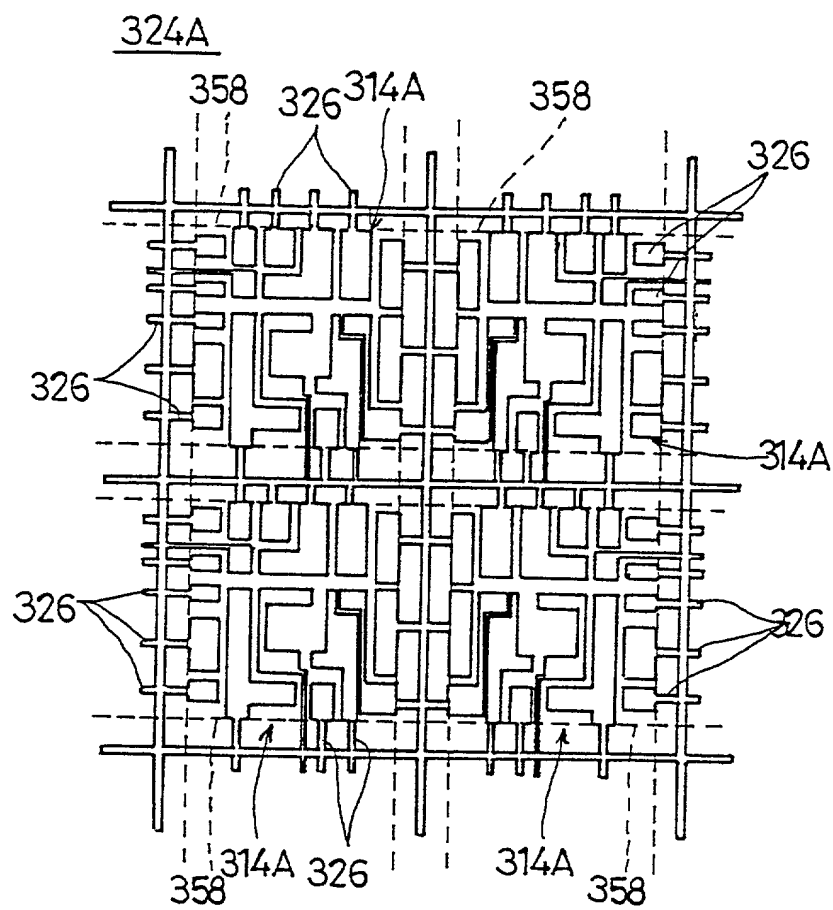


图 139

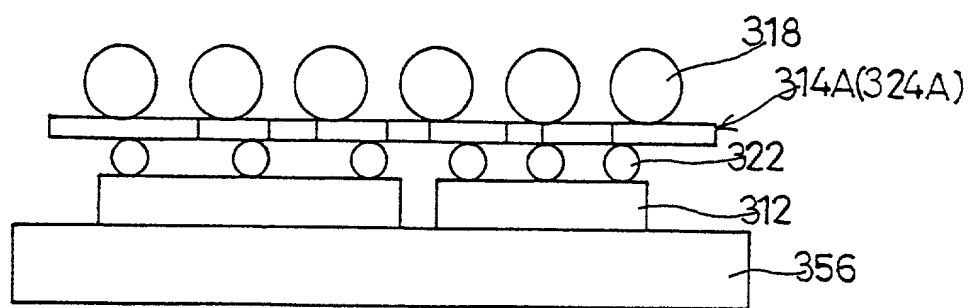


图 140

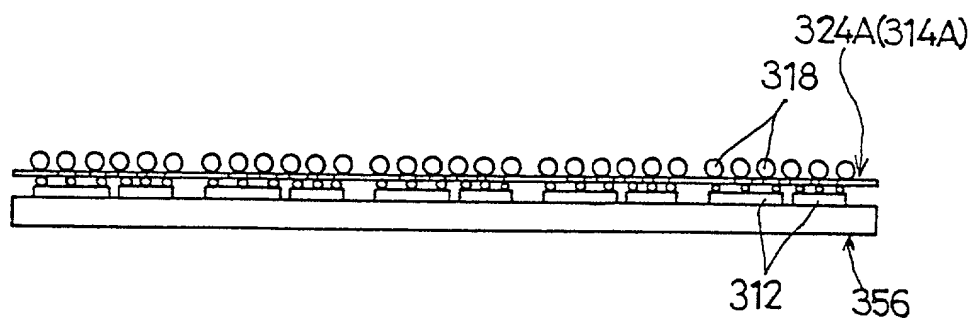


图 141

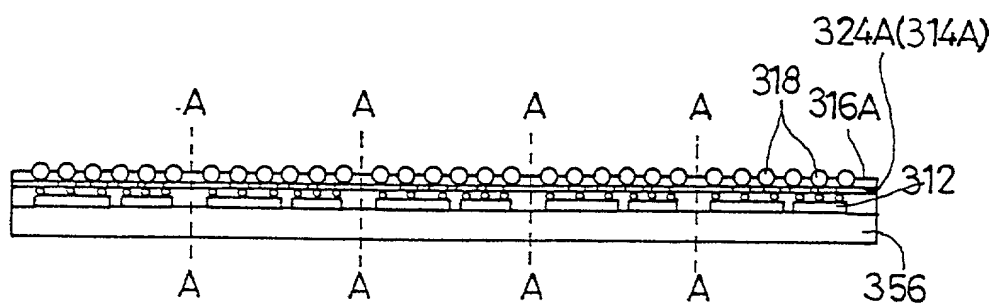


図 143

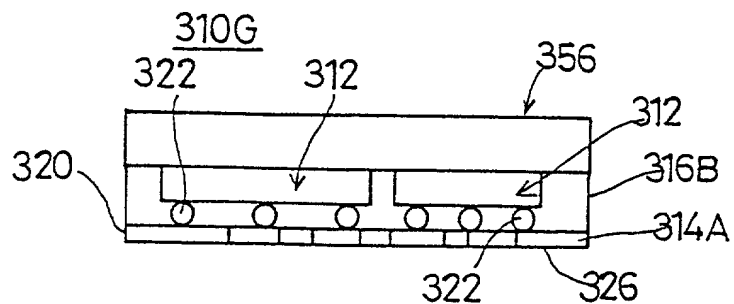


図 144

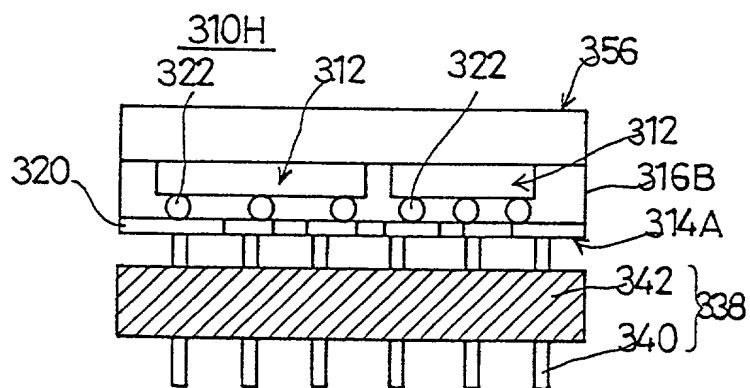
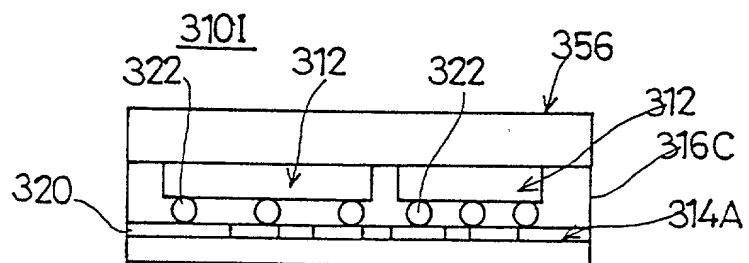
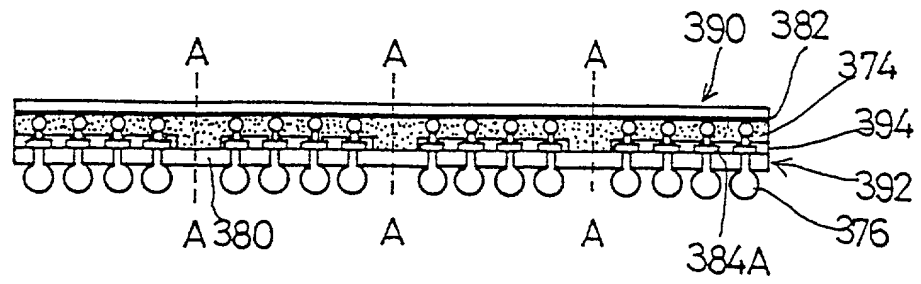


図 145



151



152

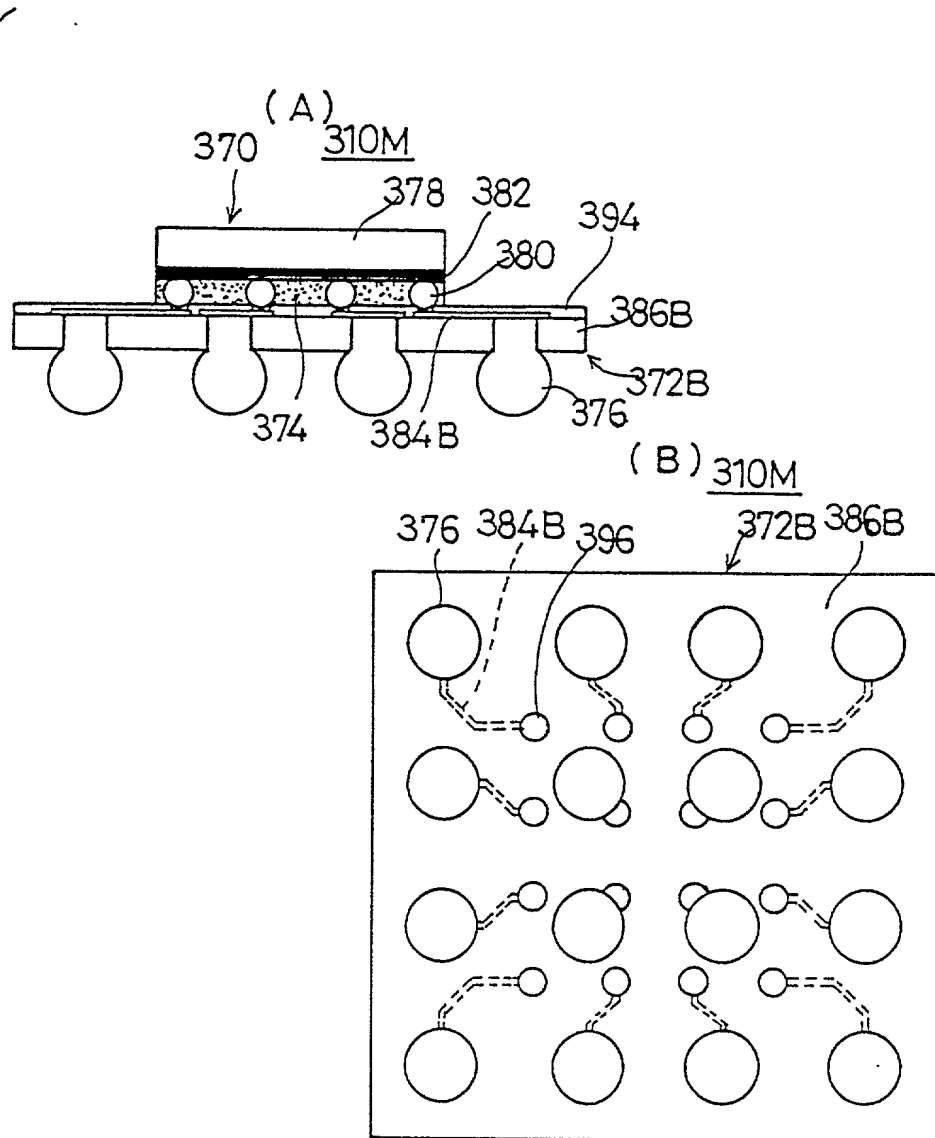


図 159

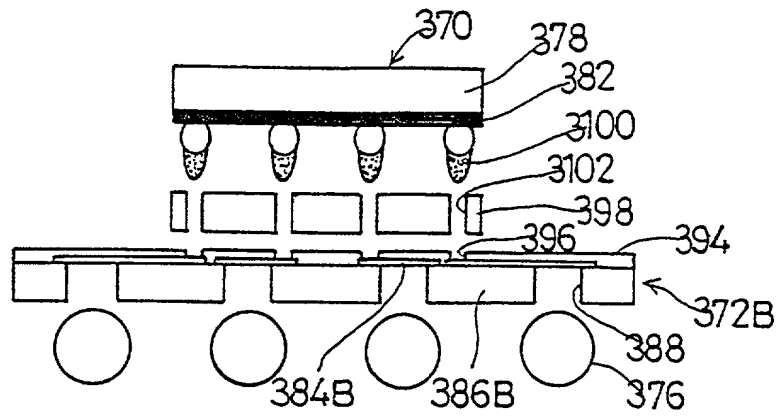


図 160

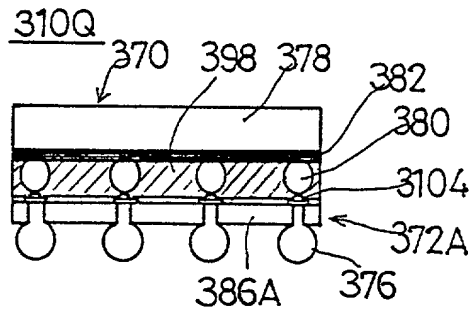


図 161

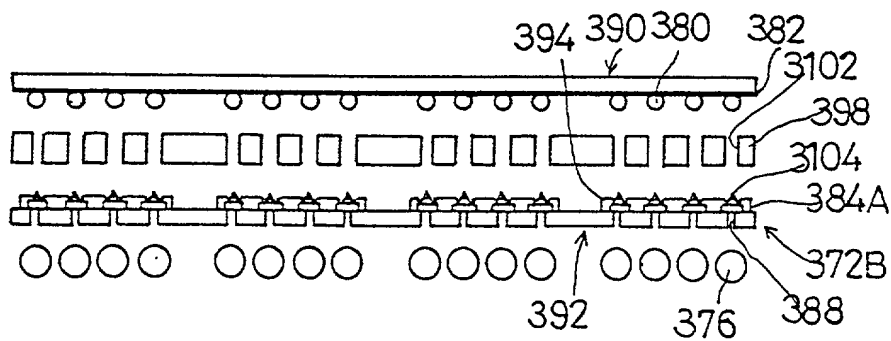


図 165

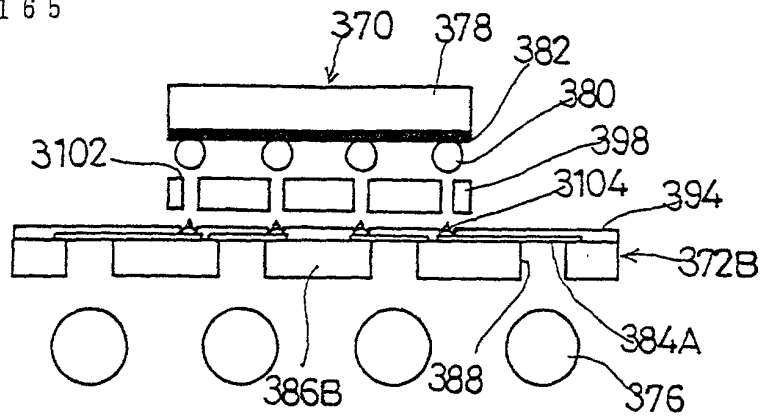


図 166

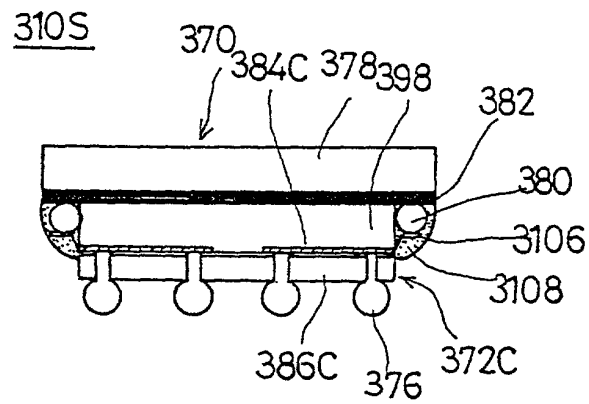


図 167

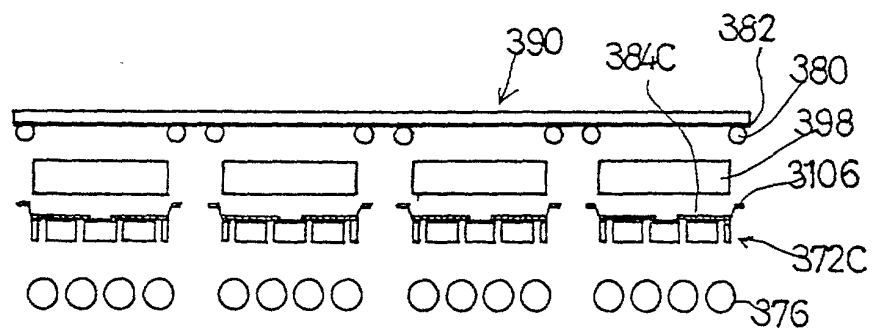


图 168

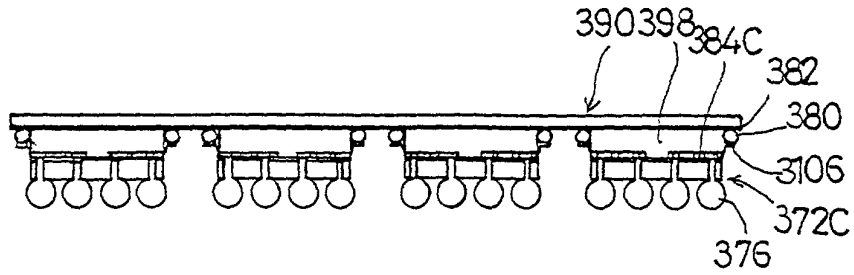


图 169

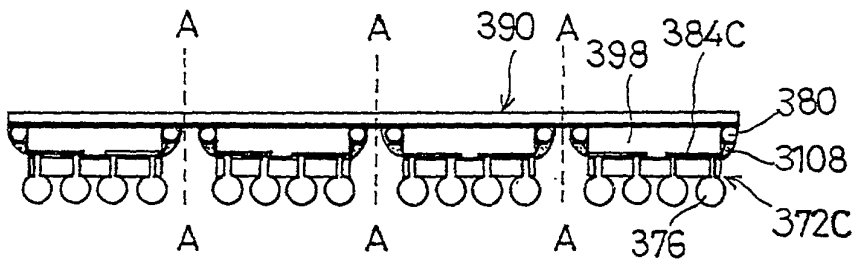


图 170

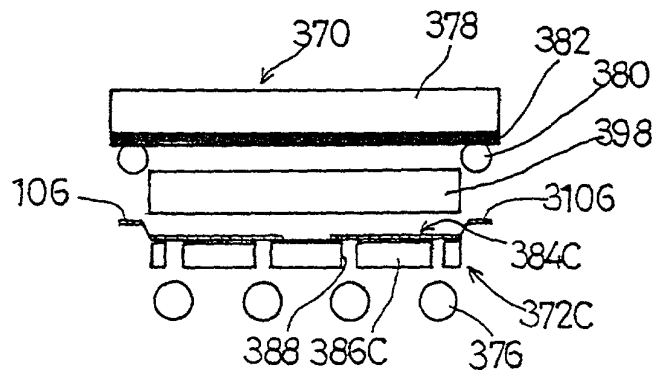


FIG. 171

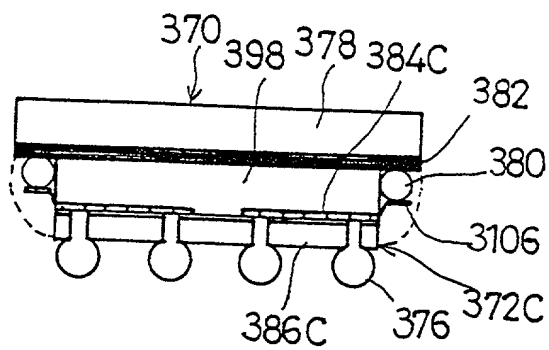
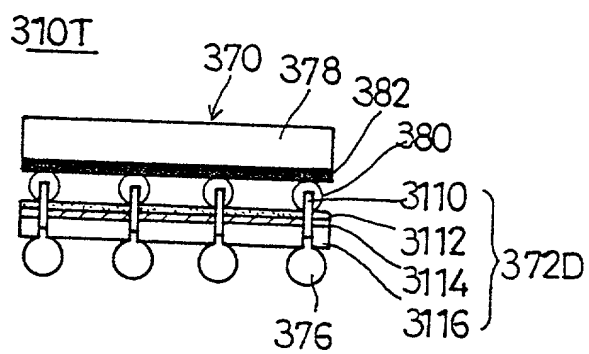
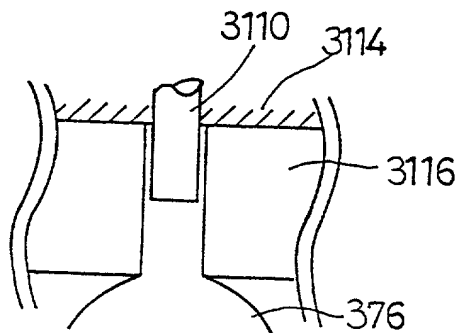


FIG. 172

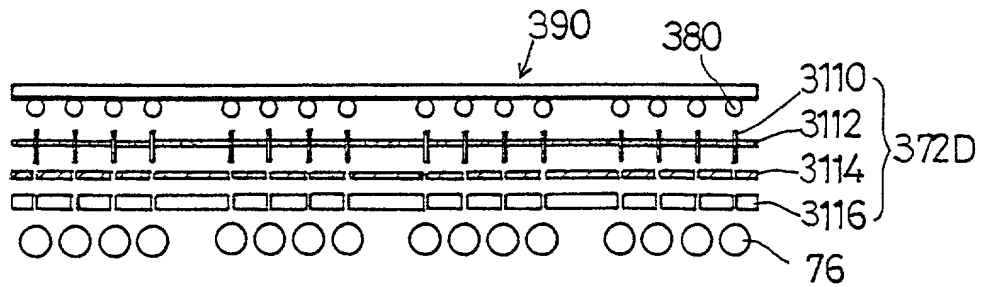
(A)



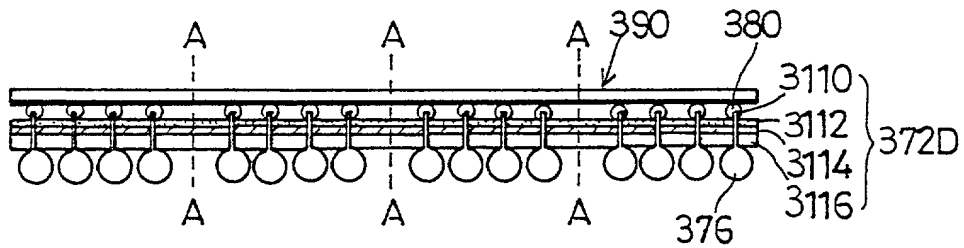
(B)



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